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REPORT OF THE INDUSTRIAL HEALTH  
AND  
SAFETY COMMISSION

1975

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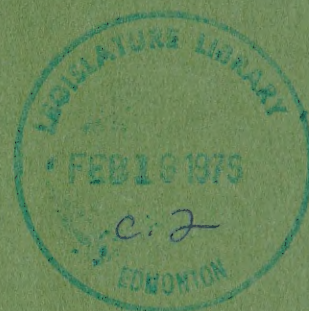




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The Industrial Health and Safe  
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# REPORT OF THE INDUSTRIAL HEALTH AND SAFETY COMMISSION 1975



THE INDUSTRIAL HEALTH  
AND SAFETY COMMISSION





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Part of the  
Proceedings of the

PART I INTRODUCTION

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Section 2. The Commission's Work

Section 3.

REPORT

OF

THE INDUSTRIAL HEALTH AND SAFETY COMMISSION

1975

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PART I: INTRODUCTION

Section 1: Letter of Transmission

TO:

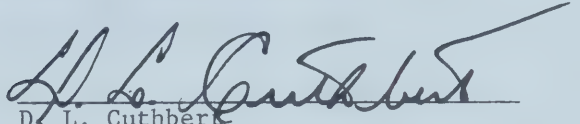
HIS HONOUR THE LIEUTENANT GOVERNOR IN COUNCIL

The Industrial Health and Safety Commission, appointed under Order in Council 1848/73 dated November 27, 1973, herewith submits its report and recommendations for your consideration.

Dated at the City of Edmonton, in the Province of Alberta, this 31st day of January, A.D. 1975.



F. T. Gale  
Chairman



D. L. Cuthbert  
Member



R. P. Lawrence  
Member



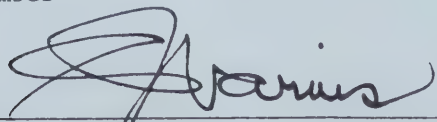
A. K. McCagherty  
Member



I. C. Nessel  
Member



C. N. Reimer  
Member



Dr. C. J. Varvis  
Member





Approved and Ordered,

O.C. 1848/73

A handwritten signature in dark ink, appearing to read 'Grant Hay', written over the title 'LIEUTENANT GOVERNOR'.

LIEUTENANT GOVERNOR

Edmonton

November 27, 1973

PART I: INTRODUCTION

Section 2: Order in Council

Upon the recommendation of the Honourable the Minister of Manpower and Labour, the Lieutenant Governor in Council appoints an INDUSTRIAL HEALTH AND SAFETY COMMISSION to conduct a broad comprehensive study and survey of all existing policies and programs and to recommend alternative plans which will provide a total co-ordinated program of occupational health and safety functions, with membership as follows:

- |     |                    |          |          |
|-----|--------------------|----------|----------|
| (a) | Fred Gale,         | Chairman | Calgary  |
| (b) | David L. Cuthbert, |          | Calgary  |
| (c) | Paul Lawrence,     |          | Edmonton |
| (d) | Alan McCagherty,   |          | Edmonton |
| (e) | Irvin C. Nessel,   |          | Edmonton |
| (f) | C. Neil Reimer,    |          | Edmonton |
| (g) | Dr. Chris Varvis,  |          | Edmonton |

A large, stylized handwritten signature in dark ink, written over the word 'CHAIRMAN'.

CHAIRMAN

## PART I: INTRODUCTION

### Section 3: Introduction

The Lieutenant Governor in Council, on November 27, 1973, appointed a seven man Industrial Health and Safety Commission with instructions "to conduct a broad comprehensive study and survey of all existing policies and programs and to recommend alternative plans which would provide a total co-ordinated program of occupational health and safety functions for Alberta". Brief biographies which outline the qualifications and experience of the Commission members are contained in Appendix A.

At the time of the establishment of the Commission, the Minister of Manpower and Labour, Honourable A. E. Hohol, said, "The Commission is to undertake a complete review and assessment of existing health and safety programs. It has the responsibility to present for government consideration the development of a total, co-ordinated program of occupational health and safety functions which will meet the needs of the growing industrial work force in the province." The press release which accompanied this announcement is shown as Appendix B.

As early as 1971, the Alberta Federation of Labour had recommended in their annual submission to the Premier and the Cabinet "that an Independent Commission of knowledgeable people be appointed to study and make recommendations on all areas of industrial health and safety and workmen's compensation".



In February, 1973, the Minister of Manpower and Labour had convened a provincial seminar entitled "Safeguard '73" to deal with the growing concern that was becoming evident directed towards occupational safety and health matters. This concern was further reinforced by the Select Committee of the Legislature in its 1973 Report on the Workers' Compensation Act. These three factors were all significant in leading to the establishment of this Commission.

It became clear to us at an early date that a complete review of the very broad and encompassing terms of reference was not possible in the six months originally suggested and clearance was obtained to extend our studies for a further period of eight months. General progress reports were made during this 14 month period to the Minister of Manpower and Labour to keep him informed. We found that even with the addition of this latter period, the extent of our study was limited to an overview of the general field of occupational safety and health. There were certain aspects of a co-ordinated occupational safety and health program such as how it would relate to an overall social security system that we did not explore at any length due to the very real time constraints under which we operated.

A small Commission office was also established at the outset for administrative purposes staffed with core personnel seconded from the provincial government service.

The Commission held an organizational meeting with the Minister and Deputy Minister of Manpower and Labour present on December 17, 1973, and since that time held more than sixty meetings, usually on a regular weekly basis in Edmonton. The first official meeting of the Commission took place on January 17, 1974.

Initial discussions centered around further defining the terms of reference and developing an approach to carry out our inquiries. The Commission recognizes that occupational safety and health is closely interrelated with public health but we have attempted to restrict our consideration as much as possible to matters of safety and health at the workplace, realizing, of course that the two fields do overlap.

The Commission established a number of guidelines for its deliberations. The first was that our field of concern would encompass all aspects of occupational safety and health as opposed to the more restrictive field of industrial safety and health. We felt strongly that any programs and policies that we might recommend should include all workers and not be restricted solely to those working in an industrial setting.

The second guideline was a desire to work towards developing general recommendations that would reduce the amount of duplication, overlap, and the lack of coverage in existing safety and health programs that was evident to all members from an early date after the Commission's establishment.

The third guideline agreed to by the members of the Commission was to ensure that all interested parties were given an opportunity to make suggestions as to improvements in the existing programs and policies. Public participation was encouraged directly through an extensive media campaign conducted with the assistance of the Bureau of Public Affairs.

It was also decided that the terms of reference indicated that the Commission should direct itself to fundamental issues of policy and programing and not become involved with administrative detail. We have



attempted to follow this approach as much as possible although we have made a number of references to specific examples to illustrate particular recommendations. The Commission throughout its term remained cognizant of a mandate to review the field in a broad and comprehensive manner and to deal with matters of policy and overall programing.

Following several initial Commission meetings, advertisements requesting the public to submit briefs were inserted in major Alberta daily and weekly newspapers. Radio and television were also used extensively. Preceding these steps, the Commission Chairman sent over 850 invitations requesting briefs and other comments to various associations, businesses, organizations and individuals thought to have a particular interest in the subject. This invitation, which highlights some of the specific concerns and interests your Commission had, is shown as Appendix C. A total of 76 briefs were subsequently received by the Commission.

While awaiting the response to the invitations and advertisements, the Commission undertook to become familiar with the present broad program of occupational safety and health in Alberta. The relevant legislation, annual reports, as well as other background material was solicited and reviewed. Informal meetings were held with representatives from various provincial and federal government departments, boards and agencies, as well as with other interested organizations. Commission members also accompanied accident prevention staff on actual field inspections. In addition, Commission members travelled to Ottawa to meet with federal officials, as well as to the

Provinces of Ontario, Manitoba, Saskatchewan and British Columbia on a similar mission to talk with provincial staff. Meetings were held in most of these locations with the appropriate management and labour representatives. We found these discussions most helpful and we received every co-operation from those who took time from their busy schedules to meet with us.

The response to the invitations for submissions was considerable both in terms of quality and quantity but we were disappointed by a notable lack of participation in the public hearings by both the private sector and the general public.

A list of those appearing at the hearings is detailed in Appendix D. The hearings were held in Edmonton on April 29 & 30, 1974, and in Calgary on May 2 & 3, 1974. We later travelled to Medicine Hat, Lethbridge and Grande Prairie for similar hearings on June 3, 4 & 5, 1974, respectively. These were all conducted in an informal but organized setting. The Commission benefited from discussing the different submissions in detail with those persons who appeared to make presentations.

Following the completion of the public hearings, the Commission then considered it desirable to visit Europe to study various aspects of safety and health at first hand in areas where leadership in certain aspects of occupational safety and health has been generally acknowledged. In September, 1974, members visited the United Kingdom, West Germany, Sweden, and Switzerland. A general report on this tour is given in Appendix E. One Commission member, Mr. C. N. Reimer, was also fortunate to have been

invited personally by union officials in the U.S.S.R. to visit that country for two weeks during August, 1974. His observations on occupational safety and health programs in the Soviet Union were of particular interest to us. In October, 1974, the Commission travelled to the United States of America to meet with U.S. federal and state government officials and with senior personnel from the National Safety Council as well as with those from union and management groups.

Discussions were held in each location we visited with the appropriate persons from management, labour and government. A number of "on site" industry inspections to look at safety and health programs first hand were also arranged.

Your Commission decided following the public hearings that expert advice should be sought in addition to the submissions received and the fact finding visits. A list of the reports we received from these consultants is detailed in Appendix F.

Our Report is divided into four Parts. Part I contains an introduction and outlines the approach we took to our assignment. Part II includes a discussion of the needs of the various parties involved in the occupational safety and health field in Alberta along with a review of the existing structure. Part III contains our analysis along with recommendations for changes to more adequately meet the needs outlined in Part II. Part IV contains a summary of our major recommendations and our conclusions.

We wish to express our appreciation to all who took the time to submit briefs, to research information for us and to meet



with the Commission in discussion. Without this assistance and co-operation we could not have completed this report. We do point out on the other hand, however, that we take complete responsibility for the recommendations which we have made and the conclusions which we have drawn.

## PART II: THE PRESENT SITUATION

### Section 1: The Needs and Responsibilities of:

- The Worker
- The Employer
- The Government
- The Unions
- The Public

Our terms of reference read as follows "to conduct a broad comprehensive study and survey of all existing policies and to recommend alternate plans which will provide a total co-ordinated program of occupational health and safety functions". One of our first steps towards reaching this latter objective was to set down our views as to the relative needs and the accompanying responsibilities of the various parties in this field. We discussed the needs and responsibilities of the worker, the employer, the unions, the government and the public.

Out of these discussions developed a listing that reflected these needs and responsibilities as we saw them and this became our philosophy if you will, and the basis for our studies from that point on.

It is our firm belief that above all the employer and the worker can and must do a much better job in the field of safety and health. It simply has to be given higher priority. The employer and the union do this in other fields. For example, in the field of collective bargaining considerable effort is devoted to the employer-employee relationship. The employer engages personnel, industrial relations, and employee benefit

managers. The union pays negotiating committees, economists, research personnel and education specialists and conducts a continuing program of collective bargaining strategies, tactics and legal requirements. The employer trains people to handle strikes and the union trains its men on the way to conduct strikes. The government engages a battery of mediators and appoints conciliation and arbitration boards.

Even with all this effort, the collective bargaining system comes under considerable fire. Some consider the process does not work and say that a substitute for it should be found. Safety and health programs as such are scarcely mentioned in relation to the collective bargaining process.

It would be useful for comparative purposes for us to look at some general accident statistics and the end result where labour and management are giving higher priority to collective bargaining than to matters relating to safety and health.

To illustrate the scope of the devastating effect of accidents on a national scale, it might be useful to quote some 1971 statistics gathered by Statistics Canada and quoted by the Canadian Labour Congress.

19 Canadians were killed on the job every week.

2,240 workers were injured every day.

The worker death toll in 1971 was over 1,300 persons.

Workers' Compensation benefits across Canada amount to over \$1,000,000.00 every working day. The cost in human terms cannot be calculated. Alberta employers tend to agree with information provided to us by the International Labour Organization to the effect that indirect costs of accidents amount to approximately four times the direct costs.



The Department of Manpower and Labour advised us that in 1972 there were 26,126 man days lost in the Province of Alberta due to strikes and lockouts. The Workers' Compensation Board on the other hand indicated that in the same year the total man days lost for temporary injury was 789,323. In addition to this there were 1,362 permanent disability awards and 104 deaths occurred where "lost man days" really cannot be calculated. These figures from the Workers' Compensation Board only take into account those persons who are covered by the Board or about 60% of the total Alberta work force.

The same sources indicated that in 1973 there were 165,552 man days lost to strikes and lockouts while the man days lost for temporary injuries were 707,465. There were 1,492 permanent disability awards and 122 fatal claims allowed.

It was very evident to us from an early date, therefore, that we must suggest a new approach to the problem of safety and health at work. Your Commission was impressed with the tremendous job that lies ahead in order that safe and healthy conditions prevail at all work sites in Alberta. To meet this objective we suggest it will take continuing effort and the assignment of a high priority by all those involved. No one can handle this job alone, independently or separately. It will require all the intelligence, ability and training that we can bring together. It will need the best combined efforts of those who are responsible for workers' compensation and rehabilitation, inspection and the various other government services, along with the employer and his management staff, the worker and his organization, the public and voluntary groups such as public safety councils, the medical profession,

research specialists and whoever else can assist in the task. We recognize that even if we bring the resources of all of these groups to bear we still will not have the complete ability to accomplish the objective.

The remainder of this Section of our Report is an outline of the principles that we believe should form the basis of any effective comprehensive occupational safety and health program.

The maintenance of a safe and healthy environment at work first necessitates a continuing effort on behalf of both the worker and the employer. To a large extent we believe it is almost entirely dependent on the willingness and abilities of employees and employers to understand and solve problems together. The Commission does not subscribe to the argument that management has the exclusive responsibility for safety at work but rather we believe that the responsibility is a shared one.

The best organized and most attractive safety and health program moreover would be ineffective without the full co-operation and commitment of all workers who are to be a part of it. We suggest this commitment can only be achieved first through the involvement of the worker while the program is being developed and later in his monitoring the arrangements for safety and health at the place of work. The Commission believes that the worker has the right and the duty to be aware of all matters related to safety and health at the work place as well as to be fully involved in the development of programs designed to achieve this end.

In respect to physical safety, management must provide the worker with adequate safety equipment. The worker must take the responsibility to use this equipment.

Workers should have a hand in developing written procedures incorporating safe working practices as they are being prepared. They must then comply with these procedures. The Commission feels that in the past in Alberta there has been emphasis on the physical aspects of safety while the development of safe working procedures has been neglected.

The worker must show the initiative in pointing out unsafe working conditions and/or procedures. He has a responsibility to his fellow workers as well as to himself to work safely.

The worker must have the assurance that he will not be penalized in any way for reporting unsafe conditions or for refusing to work in areas where these exist and there is an immediate danger to him.

The worker needs to have access to and be aware of an effective appeal procedure to deal quickly with matters in dispute related to occupational safety and health.

The educational process of instilling a general safety awareness in all workers must be started at an early age preferably both in the school system and in the home. This can be further reinforced later in the technical institutes and by having the worker receive meaningful safety orientation before commencing new employment.

Where the worker is a member of a trade union, it should be the responsibility of that organization to assist in his education in work-related safety and health procedures and regulations.

The worker must be assured of an adequate compensation package that will provide for himself and his family in the event he is disabled. A comprehensive rehabilitation program may be required in more serious instances of industrial disease or injury. This program should be



available to all workers.

Your Commission feels the provision of a safe and healthy physical work environment is a management responsibility. An effective program designed to create this ideal situation makes good business sense from both the economic and the social point of view. We feel this fact will be readily recognized by enlightened management. It follows that the attitudes and approach of senior management should therefore reflect a serious concern with safe working practices. This concern must in turn be communicated in a variety of ways to all levels in the organization as an important company objective. Work safety will then be assigned a high internal priority and this message will reach down to the shop floor level.

The Commission feels that the operation of an effective safety and health program is a proper charge on industry as a cost of doing business and should be recognized as such.

Management must take the initiative to ensure that a comprehensive program of prevention is implemented and that it is based on an overview of the total pattern of related accident occurrences rather than taken as a piecemeal approach dealing with problems as they occur. Management must, therefore, develop an effective technique to determine when, where, and why these unhealthy and/or unsafe situations develop.

It is important that management also have ready access to credible expert advice and assistance when it is required whether it is obtained from a government agency or from the private sector. The worker and the public also must have the ability to obtain this help.

From management's point of view, legislation in this field must be clear, reasonable and enforceable. The relevant Acts and Regulations also should be consolidated as much as possible to make their implementation easier and more effective. We subscribe to the introduction of the "one window" concept insofar as it is possible to achieve.

Management should lend their support to existing safety councils and associations. Management should also maintain a close relationship with government agencies and labour representatives in order to improve overall conditions.

Both the worker and the employer have a need for a competent inspectorate and a qualified consultative service in occupational safety and health. All parties involved look to government to provide leadership in this field. To meet this expectation, we feel it is essential that government must have an adequate information system on which to base objectives and priorities and to formulate its future planning. The services must be available in a prompt and organized form with as little overlap and duplication as possible. All parties must be made aware of the types of services that are available.

The Government of Alberta must show the way to the private sector by instituting an effective occupational safety and health program in the public service.

Government must also encourage the growth of an atmosphere of joint consultation in co-operation with its other partners - management and labour. The subject of occupational safety and health can best be dealt with in a non-adversary framework and government should actively encourage this to occur.

Government must take a much more comprehensive and consolidated approach to overall occupational safety and health and make major improvements to otherwise strengthen existing interdepartmental linkages.

A consolidated and expanded program of this importance would necessarily require an assurance of continuing adequate funding and be free of the usual budgetary constraints. An organization established to carry out such a program would also need a fair degree of operational autonomy in carrying out its functions.

This organization must in turn provide leadership in the fields of occupational safety and health education and research which in our opinion have generally been sadly neglected up to the present time. It should encourage the active involvement of the private sector in education and research. It must also keep up to date on new developments on the provincial, national and international safety and health scenes.

Emphasis should be placed by government authorities on the prevention of accidents and disease at work. Where it is necessary to impose penalties for a breach of the regulations, however, they should be applied quickly, uniformly, and in such a manner as to act as a deterrent.

Government should always be responsive to changing conditions and technology relating to occupational safety and health and should be able to readily adjust its legislation, standards, and administrative structures to meet these developments.

The public requires an assurance that the safety program is properly constituted and administered. Any worker-oriented safety education program will have a significant carry-over into and influence



on the public sector. The program should be well publicized and the public should have easy access to information in this regard.

In summary, we feel that any occupational safety and health program is only as effective as the attitude that exists towards it at the work site. It is the joint and co-operative responsibility of the government, employers, workers, and the trade unions when the labour force is organized, to develop this awareness and sensitivity to occupational safety and health matters on the job. Without the wholehearted support of any one of these parties, the entire program will not be successful. Your Commission has based the recommendations in this Report on the premise of co-operation, communication and support.

## PART II: THE PRESENT SITUATION

### Section 2: The Existing Structure

A federal survey released in April, 1973, indicated that there were no fewer than 188 statutes in the various federal, provincial and territorial jurisdictions that had some bearing upon occupational safety and health. In addition more than 425 sets of regulations pursuant to these acts have been catalogued. All of this statutory material is in turn supplemented by numerous standards and codes such as those in force in the municipal field.

There are historical as well as technical reasons for this proliferation which is common to all levels of government in Canada. Appendix G is a table showing the Canadian federal, provincial and territorial agencies responsible for the administration of relevant legislation in the principal areas of safety and health.

This table also indicates it is usually a provincial Department of Labour that is involved in administering legislation in the mechanical and general safety fields. In some provinces the Workmen's Compensation Board is responsible for general safety in the industrial, commercial and construction areas, but this does not generally extend to the mining industry.

This multiplicity of jurisdictions presents a number of problems. In summary, however, we believe it is safe to say that the picture does not focus in a clear and comprehensive way on the problems of safety and health at work. Even if the existing legislation were

taken together it would not provide universal coverage for the work force and in fact the gaps and overlaps that now exist appear to us to create uncertainty and confusion.

The number of departments, boards, and agencies in Alberta involved in the administration of this wide variety of legislation related to occupational safety and health creates a situation definitely not conducive to an atmosphere of co-operation and co-ordination. The available expertise is compartmentalized. Thus it is difficult for close working relationships to be established between personnel who may be engaged in related fields but employed by different organizations. The legislation presently in force also appears to reflect a lack of prior consultation among all parties concerned with occupational hazards. It is our observation that the end result is that the application of this legislation tends in many cases to be competitive rather than co-operative.

Your Commission has determined that there are six Alberta government departments, boards and agencies which presently have a major involvement with occupational safety and health programs and policies in the province.

These are:

- (1) The Department of Health and Social Development
  - (a) The Division of Industrial Health Services
  - (b) Public Health Services
- (2) The Department of Manpower and Labour
  - (a) Inspection Services Division
    - (i) The Boilers Inspection Branch
    - (ii) The Building Standards Branch
    - (iii) The Electrical Protection Branch
    - (iv) The Elevators Branch



- (v) The Fire Prevention Branch
- (vi) The Gas Protection Branch
- (vii) The Plumbing Inspection Branch
- (viii) The Theatres Branch
  
- (b) Manpower Division
  - (i) Apprenticeship and Tradesmen's Qualification Branch
  
- (c) Labour Division
  - (i) The Board of Industrial Relations
  
- (3) The Workers' Compensation Board
  - (a) The Accident Prevention Department
  - (b) The Medical Department
  - (c) The Vocational Rehabilitation Department
  
- (4) The Energy Resources Conservation Board
  - (a) Coal Division
  - (b) Development Department
  
- (5) The Department of the Environment
  - (a) Environmental Protection Service
  
- (6) The Department of Highways and Transport

The overall main thrust of most of these organizations appears to be directed towards public safety through involvement in the setting of standards, the approval of plans, and the inspection of equipment before, during, and after its installation. To a lesser extent they also carry out some follow-up inspections.

There is not, however, a focus on the worker and the work site by any of these previously mentioned groups with two exceptions. The major one is the Accident Prevention Department of the Workers' Compensation Board. The activities of this Department are directed towards the prevention of injury to the worker both in inspection of the work site and by conducting educational programs. The other exception is the Coal Division of the Energy Resources Conservation Board which is responsible

for the maintenance of safe working conditions in the various coal mining operations and quarries across the province. This particular service constitutes a relatively small part of the total activities of the Coal Division which we understand are basically directed towards physical resource conservation.

Your Commission feels it appropriate at this juncture to make the following general comments concerning the existing safety and health services presently available to the worker in the province.

The Division of Industrial Health Services of the Department of Health and Social Development was established as a direct result of both a growing concern with and an increasing knowledge of the effects of occupational hazards and diseases. The main direction of the Division was then and has continued to be towards the many small industries in the province that cannot support any internal technological services. These services are, therefore, provided by the Division on a request basis.

The Division operates essentially through regulations of the Provincial Board of Health under the authority of the Public Health Act. The Director of the Division of Industrial Health Services reports to the Deputy Minister of Health who also serves as Chairman of the Provincial Board of Health. At the time of writing, the relatively small Divisional staff complement totals 20 of which 16 are professional and technical personnel.

Your Commission must express here its concern with the present apparent lack of overall priority, direction and support given to the Division in this very large Department as well as with

the obviously inadequate budget the Division has been assigned. We are also disturbed by its inability to levy a "fee for service" which can be returned to the operating budget of the Division. These factors taken together have severely hampered the effectiveness of this group. Staff shortages, particularly at the technical and professional levels, have also seriously limited the extent of the coverage extended by this Division.

The competence of the Division's leadership and staff is, however, widely recognized. The Division has at present a very small field enforcement capability. The resignation of the Director of the Division in December, 1974, was most unfortunate. Your Commission is extremely concerned with the need for the expansion of the overall services provided by the Division of Industrial Health Services and we will make recommendations in this regard.

The diversity of separate jurisdictions that often are involved in the field of occupational safety and health is, we feel, demonstrated by the internal organization of the Department of Manpower and Labour. This Department presently has some ten definable and separate functional areas that have a variety of responsibility for occupational safety and health in the broad public protection sense. We understand some reorganization and consolidation of these functions is proposed by the Department and we believe a move in this direction is certainly long overdue.

The Inspection Services Division of the Department through its various specialist branches is involved in the approval of equipment design, the inspection of installations, as well as the setting

of standards to ensure safe equipment operating limits (Appendix H). The Division also investigates operational failures as well as sets and enforces standards and issues permits to ensure that the public is not endangered through the existence of unsafe operating conditions.

The Manpower Division on the other hand is active in setting standards of qualification for each trade under either the Apprenticeship Act, the Tradesmen's Qualification Act or the Welding Act. It develops the training program given to the apprentice, but the teaching of general safety practices is normally not included in this curriculum.

The Labour Division is involved in worker safety and health to a limited extent through the Board of Industrial Relations which establishes regulations governing hours of work as required by the Alberta Labour Act. The Division of Industrial Health Services previously mentioned acts in an advisory capacity to the Board in this respect. There are also sections of the Labour Act that apply to the provision of safety clothing and safety appliances, as well as prohibiting certain work practices that may be detrimental to the worker.

The principle of "workmens' compensation" has been recognized in Alberta since 1918. The implementation of legislation in that year involved the giving up of some rights by management and some by labour in order for each to secure other rights. The general concepts on which the legislation was then based and which still underly the present day legislation are as follows:

- (1) that compensation without fault for work injuries must be considered an ordinary cost of doing business.

- (2). that such compensation should be paid from a fund acquired



entirely from industry, on a collective liability basis, and

(3) that adjudication and administration with exclusive jurisdiction should be by an independent Crown Commission in order to avoid the cost and delays of litigation in the courts.

The duties of the Board include the adjudication of claims and the awarding of compensation, the provision of medical treatment and rehabilitation, the conduct of an accident prevention program, and the assessment of industry based on actual accident experience.

As we mentioned previously, the main area of interest to this Commission at the Workers' Compensation Board was the Accident Prevention Department. This Department conducts inspections of the work site to ensure that safe working procedures are being followed and safe conditions exist for the worker. A section of the Board regulations deals with worker safety at the work site. The Board through this Department may order an employer to correct unsafe working conditions within a specified time, or to shut down operations immediately if conditions warrant.

The Coal Division of the Energy Resources Conservation Board is presently charged with the responsibility for administering the Coal Mines Safety Act which covers general safety conditions at mines, quarries and related processing plants in the province including the accompanying exploration, storage and transportation operations. We were advised a new Coal Mine Safety Act will be in effect in the near future. The Division has a small field inspection staff which was transferred to the Board from the Department of Mines and Minerals in 1972. It is our understanding, however, that the actual monitoring

of the health of the miners is carried out by the Division of Industrial Health Services. The Energy Resources Conservation Board administers the mine rescue program although the program itself is funded by the Workers' Compensation Board.

The Development Department of the Energy Resources Conservation Board is active in the oil and gas industry in what is essentially a natural resources conservation role. The field staff of this particular Department work closely with the Workers' Compensation Board personnel in carrying out field inspections.

The major involvement of the Department of the Environment in the field of occupational safety and health is through the Environmental Protection Services Division which falls under the Department of the Environment Act. The Division is concerned primarily with public safety rather than strictly with worker safety. The linkages between "pollution control" and occupational health, however, are self evident. We were advised that the Department has developed a very close working relationship with the Division of Industrial Health Services in areas of common interest.

The Environmental Protection Service sets standards in two ways. The first method is by accepting standards established by other authorities with known expertise in the field. The second is by modifying these standards by making provision for factors particularly relevant to the Alberta scene. Generally these latter standards are more stringent than the former. The laboratory facilities of the Department are primarily used for testing samples for the presence of pollutants while a limited amount of basic research is conducted at these facilities.

The Department of Highways and Transport is in the public safety field through its involvement in such endeavours as the design and construction of highways, the control of commercial or other developments adjacent to highways, the regulation of types of transport, the holding of driver examinations, the establishment of load and speed limits, and the placement of warning signs. In recent years regulations applicable to school bus operation have been developed and modified by this Department to meet changing times and conditions.

Both the Department of Highways and Transport and the Workers' Compensation Board have some responsibilities under existing legislation for safety related to pipeline contractors, mobile equipment, liquefied petroleum carriers and certain operations being carried out on mineral leases.

The Alberta Department of Agriculture has made relatively small inroads into implementing a comprehensive safety program for farm workers. We were interested to learn that it has been estimated that about one quarter of the time of the District Agriculturist in the United Kingdom is spent in administering farm safety programs which are apparently extensive in coverage and well organized.

One other agency active in the province is the Canada Department of Labour whose inspection staff is restricted to working in those industries under federal jurisdiction and the Federal Public Service. We were advised, however, that an agreement was close to being finalized between the Canada Department of Labour and the Alberta Workers' Compensation Board which would allow the Board to

carry out inspections on behalf of the federal department in areas of federal jurisdiction. These inspections would be done on a "cost recoverable" basis.

We found other Alberta provincial government departments or agencies are usually involved in occupational safety and health in a more informal way in that they do not have a structured program. For example, the Alberta Liquor Control Board establishes regulations to set certain standards of equipment, premises and worker conduct which have a direct influence on occupational health. The Alcoholism and Drug Abuse Commission through its educational program also has an influence in this field. Recent moves have been made to ensure the joint input of labour and management into the work of the latter Commission through the establishment of a "Labour-Management Council".

While they do not fit into the formal provincial government or municipal structure, we were interested to learn of two experimental programs which have been initiated recently at Red Deer and at Grande Prairie which may indicate the start of a new approach to occupational safety and health. The former, which has been implemented by the Red Deer Health Unit, involves an expansion of the responsibility for the "public health" function to encompass a program of "total community care". It brings the Unit into contact with all aspects of domestic, social, recreational and occupational health. This co-operative exercise has made the services of the Unit available, for example, to assist those industries in need of advice on matters related to safety and health on the job.



We were also advised of the Grande Prairie "F.A.C.T.S. Project" now underway which is basically a program of safety education and research. It offers citizens in the Peace River region an eight hour training course in Emergency First Aid. Its objective is to provide this training to at least 25% of the adult population in that area during the next three years. In this way, it is hoped to assess the effects of large-scale first aid training on the industrial and general accident record by comparing the experience prior to the first aid training with that after the training program is completed. The project is being conducted by the residents of the area with the support of the Workers' Compensation Board and the St. John's Ambulance Association.

The role of the municipal governments in Alberta in carrying out occupational safety and health programs is somewhat limited. As far as this relates to the larger field of public safety, the Alberta government develops regulations and sets the appropriate standards in the mechanical and general safety fields, usually in co-operation with the appropriate city and municipal officials (Appendix H). Inspections and enforcement carried out under these regulations may be conducted by the province, in the case of boilers and elevators, or by the city or municipality, in the case of building standards and plumbing.

We previously indicated that the Provincial Board of Health now passes regulations pertaining to worker health. The enforcement of these regulations may be handled by the local Public Health Units.

As far as programs in the private sector are concerned, your Commission has determined there is no structure encompassing the

accident prevention function that is common to various industry sectors or even to individual companies working within the same industry. This situation usually applies also to the unions involved as well as to the unorganized worker. There has been no real or meaningful co-ordination of effort by various corporations and unions in this direction with the possible exception of limited attempts by the central labour bodies. We feel this represents a further extension of the same disjointed system that exists within government.

The reason for this lack of a common approach, we believe, is that to date there simply have been other higher priorities set by all parties involved than that of the safety and health of the worker. What emphasis there has been on the latter in the past has been largely restricted to various aspects of physical safety with very little effort directed toward overall occupational or industrial safety and health. Any programs that have resulted, therefore, have generally reflected a reaction to accidents after the fact rather than incorporating the philosophy of prevention. While we are living in an age of rapidly advancing technology, there are very few people who are presently assigned to study or trained to recognize and treat the diseases workers can contract from their occupations.

We did determine, however, that safety activities in private industry take on a variety of structures, meanings and priorities at different work sites. The single common denominator that prevails, however, is that safety is a management function. Consequently, the impact on overall safety programs by the individual worker on the shop floor has not been significant until now. It may not be fair to

say that management does not want the worker to have a meaningful say in safety. Attitudes and competing priorities have prevented this from happening.

It is difficult to measure life, safety and health by the dollar yardstick. The economic facts of life as reflected on the ledger sheets have dictated where the highest priority would be placed. Our national criterion is the gross national product. It is understandable, therefore, that management has placed an emphasis on increasing production per man-hour. Coupled with this is the fact that science and technology have charisma. These two main factors have created a desire to take immediate advantage of new substances and new technologies. Safety simply does not have the same charismatic effect.

Bureaucracy also frequently dilutes and diffuses the ultimate responsibility for safety. The plant organization itself is sometimes complex and this makes it more convenient to have a vertical superior - subordinate relationship rather than a partnership arrangement such as we feel is basic to the development of an effective safety and health program. The Canadian Manufacturers' Association advised us in their submission that there were a great variety of ways in which the employer had organized the safety function and that this flexibility should be allowed to continue.

Enlightened management encourages both the workers and the unions to play a role in safety and health. We have found with some notable exceptions that the larger employer in Alberta is the enlightened one with respect to safety and health matters.

Another factor that we feel is significant is that illnesses and accidents are often confused. Primarily, we suggest, this is because insufficient diagnostic expertise to identify occupational health diseases exists among general practitioners who are engaged by the employers or the workers. A number of business establishments in Alberta have engaged nurses "on site" but very few of these individuals have specialized industrial health training.

One further point deserving of comment is that there has been very little effort devoted to determine the forces that shape the attitude of the employed person. It is conceded that these attitudes greatly affect safety. To a large extent accidents result from a lack of education or from errors in judgment. A general belief is that an unpleasant experience in the home or outside the plant premises can influence the attitude, reflexes, and performance of the worker on the job. There is a reluctance to accept the converse that the work place, the work a person performs there, the satisfaction he or she gets from it, is the main attitude maker. These may be responsible in a large measure for his or her behaviour outside the plant.

Less than 35% of the workers in the Province of Alberta are at the present time unionized or organized. Their organizational structures vary from affiliates of the Alberta Federation of Labour to independent organizations and councils. The remainder of the work force have no formal organization.

What we have said previously about management then can also be said about unions as both work with the same people. Some unions in Alberta do not have a safety and health program while others appear



to have taken a fairly sophisticated approach to the whole question. Unions argue that some type of formalized structure must be present inside the plant in order that they can become active, effective and have input. As far as safety and health is concerned they believe that by working on an individual basis progress is much slower. Wages, seniority, vacations, or in other words, the economic welfare of a worker, has been the main priority of most unions with safety and health in a very secondary position.

This attitude, however, now appears to be changing. Your Commission was encouraged to learn that in recent years central bodies such as the Canadian Labour Congress and the Alberta Federation of Labour have started to place a higher priority on safety and health. For example, the Alberta Federation of Labour organizes seminars, educational sessions and other group activities to involve their affiliates and encourages them to establish safety committees in their own operations. Members of this Commission attended one of these Federation seminars and were impressed by the subject matter, its presentation, and the interest shown by those attending.

There is no doubt that programs such as these have been effective and it is obvious to the Commission that a greater awareness exists amongst the trade union membership as a result of them.

The worker himself has done very little to encourage his employer or union to give a higher priority to safety and health programs. Often he does not use safety or protective equipment even if it is provided to him. He uses a variety of excuses to rationalize such irresponsible actions. These workers seem to think

that accidents happen to the other fellow and never to themselves. Yet when one is involved in an accident he becomes deeply concerned about his personal welfare. Alberta, like other jurisdictions, has a pool of injured persons who in retrospect criticize and condemn existing safety and health programs and are among the most unhappy of our citizens.

Many of the hazards - particularly those with a high health risk - are not understood by the worker. Perhaps he wants and needs leadership in this respect. Nevertheless, the apathy of the worker is one of the greatest problems that we feel has to be overcome.

There was little input into the work of this Commission by employers or workers in the province who are not organized. Indeed, the Commission assigned itself the task of going to these operations, speaking to individual employers and workers, and in this way finding out more about safety and health concerns in this setting. The unorganized worker appears to be reluctant to report accidents and hesitates to point out bad safety practices because he is not aware of the procedures to follow or he does not want to lose his job. Many of the places where he works are small, and safety practices appear to follow directly in line with the relationship the individual worker has with his employer.

### PART III: ANALYSIS AND RECOMMENDATIONS

#### Section 1: The Organizational Framework

It was clear that since our terms of reference required us to make recommendations which would provide the basis for future policy and programs related to worker safety and health, the organizational framework to carry these out would form an integral part of our discussions. This certainly proved to be the case. The Commission shortly after its formation came to the conclusion for a number of reasons that some rather major organizational changes would be necessary. It was evident from the very early stages of our hearings and deliberations that there was lack of co-ordination in programs, loose linkages between various organizations and, in general, questionable priorities existing with respect to occupational safety and health programs in Alberta. We examined many possible models that might help correct these deficiencies and quite candidly we changed our view as to the most ideal one as time progressed. What possibly caused this shift was that as additional information came to our attention, we became increasingly aware of and gained a far greater appreciation of the scope and magnitude of the problem confronting us. This, coupled with the realization that there will continue to be an ever-increasing concern in this field, made it obvious that our task was not a simple one. Our search, therefore, has been to find a structure that would be responsive to the safety and health needs of all concerned, and one that would be easily understood and not hampered by excessive bureaucracy.

We have previously dealt with the existing structure in some detail in Part II, Section 2. In summary, it is our view that this structure is seriously fragmented with excessively loose linkages existing between various government departments and agencies. The wide variety of related occupational safety and health programs in reality lack any effective co-ordination. We feel that much stronger safety and health programs are needed and greater attention will have to be given to these programs in the future by all concerned. No minor adjustments or piecemeal changes can correct either the present situation nor anticipate directions in future programing. Major revisions are necessary.

Your Commission looked closely at a variety of organizational models in the other jurisdictions we visited in North America and in Europe. While there were many elements in a number of these which were very interesting there was not one single operational structure that we felt could be introduced into Alberta intact that would meet the needs of worker and management as we see them. These needs are elaborated upon in Part II, Section 1 (Needs and Responsibilities). Nevertheless, the experience of these various jurisdictions helped us to avoid a number of pitfalls and to reach a decision with respect to the structure that we now recommend.

The principles that we developed to assist us in reaching this decision regarding a new structure may be outlined as follows:

(1) The new organizational framework should have a clear and identifiable profile that would give safety and health a greater visibility and priority than it has at present. Your Commission has observed that



when large government departments have the responsibility for other major programs as well as some responsibility for occupational safety and health then these latter programs often receive low priority.

(2) The new structure should be responsive to the needs of the worker and be primarily designed to carry out and/or co-ordinate the various programs developed to meet these needs. The organization must be capable of dealing promptly with problems and have a definite "field" orientation. We have based all our recommendations on the specific needs at the work site as we perceive them. The effectiveness of any program will ultimately be determined at that location.

(3) It is essential that the new structure receive the benefit of the meaningful participation, input and co-operation from the main parties involved, that is, from government, labour and management.

(4) The structure should embrace the "one window" concept for all occupational safety and health matters insofar as this is possible to achieve. This also means close working relationships will have to be established with other enforcement and inspection agencies.

(5) The present autonomy of the Workers' Compensation Board with respect to claims, assessments and rehabilitation must be preserved.

(6) There should be adequate and consistent funding for the overall occupational safety and health program. The requirements of this particular type of program do not lend themselves to continual fluctuation.

(7) A method of checks and balances should be incorporated and the entire operation should be ultimately accountable to the political process.

(8) The structure should have a major emphasis on prevention.

To achieve this there must also be a capacity to accumulate and store relevant information as well as the capability to make this available as appropriate.

(9) The new structure should have an educational capability directed towards increasing the occupational safety and health awareness level of workers in the field as well as of the persons responsible for developing and administering the program.

(10) The recruitment, training and development of staff for such a structure should be a priority item.

(11) The structure should be responsive to social objectives and directions. The Commission recognizes there presently is a considerable thrust towards a greater integration of all social security systems.

In order to satisfy these foregoing principles it was our view that the new structure would have to provide numerous services. There would have to be capacity to provide inspection, enforcement, education, health, monitoring and consultative services. There would also have to be a research and development component. There would have to be a particularly close working relationship established and continued with the organization providing compensation and rehabilitation services. It would be necessary to ensure that effective linkages were established with other government departments as well as with the private sector.

Your Commission is of the view, therefore, that legislation relating to occupational safety and health should be the responsibility of one central body and managed accordingly.

We looked at a variety of frameworks and models that might be used to satisfy the requirements of an effective safety and health program. We gave serious consideration to proposals involving either the expansion of the existing Workers' Compensation Board; the establishment of a new and independent agency; the establishment of a new ministry and consequently a new department; or the incorporation of an authority within an existing department of government.

We also had the benefit of reports from Consultants who made their recommendations after reviewing the existing structure. Their findings are outlined in Appendix F. We also received a recommendation from the Minister of Health and Social Development. This letter from the Honourable N. Crawford is shown as Appendix I.

Our conclusion is that there likely is no single ideal structure. We believe above all, however, that it is people that make structures work and we recognize the success of any model that we do recommend if it is established will in a large measure be determined by the type of personnel employed.

The model we recommend is one which would involve the establishment of a new ministry for occupational safety and health headed by a Minister of the Crown. The Workers' Compensation Board would be located in this new ministry and would retain its direct link with this Minister. A separate Department of Occupational Safety and Health (DOSH) would also be established to bring together the activities of an occupational safety and health service. The newly created Department would have a centralized inspectorate, along with a research and development, education, occupational health, as well as an administrative capability. We believe it is most

important that the Workers' Compensation Board and the new Department of Occupational Safety and Health are responsible to the same Minister. This new Department of Occupational Safety and Health will often be referred to subsequently in this Report as the Department or DOSH.

Your Commission gave considerable thought to making a recommendation that would see placing the occupational safety and health function in an existing department, but on balance felt that the creation of a separate department would give occupational safety and health programs the priority and visibility they require and deserve. It is our unanimous view that the establishment of a separate department would best meet the principles spelled out earlier in this Section and the Needs and Responsibilities outlined previously in Part II of our Report.

It may be useful to outline the factors we took into consideration in reaching this decision. It is obvious that the creation of the new Department would remove from the Workers' Compensation Board a number of the functions that the latter presently attempts to perform. Your Commission was impressed with the real problems of settling claims and the volume of work involved in this function as well as with the importance of the Board's relationship with the claimant, the public, the various labour groups and the employers. We suggest that the type of relationship that the Board must establish with all of these "clients" may very well be counterproductive in many of the areas of activity related to occupational safety and health that we feel must be pursued.

Your Commission also feels that there must be a new emphasis on rehabilitation, indeed an entirely new philosophy, if a meaningful safety



and health program is going to work. This in itself is a task of major dimensions which we comment further upon later in the "Health Services" Section of our Report.

We should stress that the recommendations we made here should not be viewed as downgrading the work that has been carried out in this field by the Workers' Compensation Board in the past, but rather as an attempt to upgrade the quality of the performance of the Board in certain other specialized areas which are complementary to an effective safety and health program. Your Commission is more comfortable, therefore, with a recommendation that would allow the Workers' Compensation Board to concentrate on the very important tasks of claims adjudication and rehabilitation and assist in the development of meaningful worker safety and health programs being carried out by the new Department.

The Commission does not wish to take the risk of establishing a Workers' Compensation Board that is unwieldy and unresponsive, that may become too bureaucratic and may have the responsibility for more programs than it can successfully manage. In any event, had the Commission decided to recommend an expanded Workers' Compensation Board to encompass the entire occupational safety and health function, the structure of the Board that is presently widely accepted could not have been maintained.

There must be very close linkages, however, between the components of the new Department and the Workers' Compensation Board. These linkages will likely have to be legislated in many instances and we will touch on these later in this Section of the Report. We recommend such linkages should result in the new Department and the Workers' Compensation Board working closely together in areas of common interest

and concern. The files and records of the Board must be made available to the new Department in order that meaningful and responsive programs can be developed. Similar information must also be provided by the new Department to the Board for the same purposes.

We also seriously considered recommending the establishment of a separate agency or authority. We were aware that at the time of writing this report the United Kingdom Parliament had passed a Bill that saw the establishment of a separate and self contained occupational safety and health agency with autonomy in its operations. Clearly the legislators in the United Kingdom felt that any such organization must have a minimum of direct political accountability. We were advised that an agency was likely the most desirable of all proposed occupational safety and health structures but that industrial development in Alberta was not sufficiently advanced to warrant the establishment of such an institution here.

Your Commission came to the conclusion, therefore, that the two most valid choices we had were to recommend either placing the worker safety and health program in a new department or consolidating it within an existing department. Again we would emphasize that this was not an easy decision to make. While we were in complete agreement in recommending the establishment of a new department, all Commission members felt that consolidating the program in an existing department also had considerable appeal. If we were to have recommended that the program be placed in an existing Department, it would have been in the Department of Manpower and Labour.

Your Commission shares the view of the Royal Commission headed by Lord Robens as expressed in his recent Report, "Safety and Health at Work

in the United Kingdom" where it is emphasized that occupational safety and health should have a clearly recognizeable and separate identity. We did not believe that a recommendation that would see the safety and health program placed in an existing department would accomplish this. We would again state our observation that an occupational safety and health program does not get the priority it deserves when it is located in a department with a broad spectrum of other programs to administer.

The people who are placed in charge of occupational safety and health programs will have to be both skilled and dedicated. These programs do not possess the inherent charisma of others such as public health education, environmental protection, highway construction or recreation. Occupational safety and health is forcibly drawn to the attention of the public only when programs fail, that is, when there is mine explosion, when an excavation caves in, or when a plane crashes. Yet occupational safety and health programs increase in importance daily. There are millions of man hours lost each year as a result of industrial accidents and disease at a tremendous economic and social cost to industry and to society. The well being of the worker and consequently that of his family is involved, as well as his own efficiency and productivity at the work site. Occupational safety and health requires the singular and particular attention of all parties concerned. Your Commission recommends that in Alberta this requirement can best be met by the establishment of a separate department and not by the expansion of an existing department where a Minister would have to choose from many competing priorities.

As a first step, we recommend that the necessary enabling legislation be enacted to establish this new Department. The terms of reference should be drafted in such a way as to give the Department prime responsibility for the entire occupational safety and health field.

As we have mentioned previously, the Division of Industrial Health Services at present is represented on the Provincial Board of Health, which is chaired by the Deputy Minister of Health. The Board in turn deals with matters and makes regulations related to the work of the Division. We feel that the new Department should be represented on the Provincial Board of Health in view of the close relationship that exists between the occupational and the public health fields. It is likely that this representation would come from a restructured Division of Occupational Health.

There may be a transition period where it is advisable that the Provincial Board of Health continue to establish regulations dealing specifically with occupational health matters but we would foresee that the new Department would assume this responsibility as soon as the necessary broad overall enabling legislation is passed. The same comment would apply to occupational safety procedures and standards which are presently set by regulations of the Workers' Compensation Board.

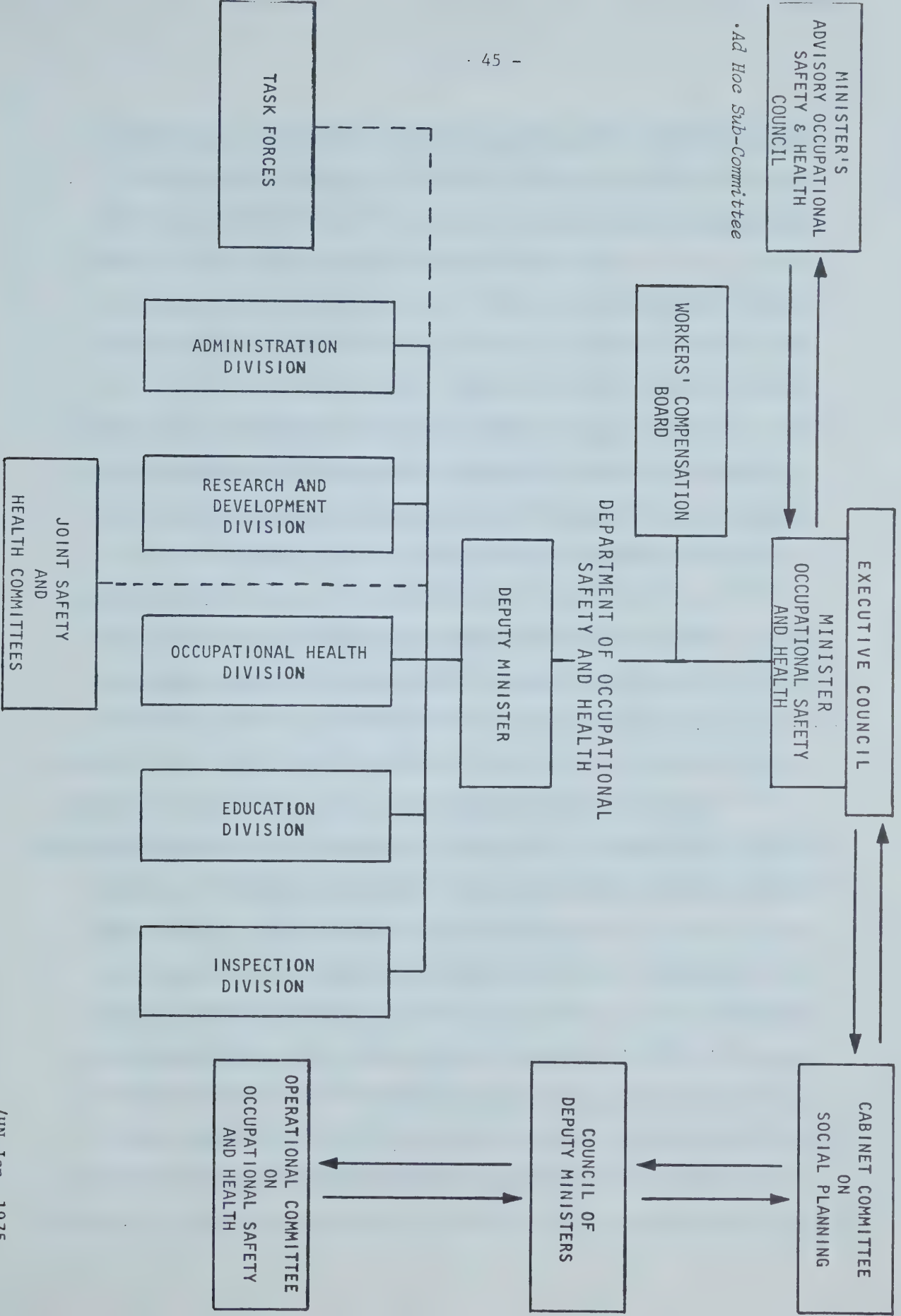
We have prepared the accompanying organization chart (Figure 1) which gives a graphic representation of the departmental organizational framework we recommend be established.

As you will note from the chart, we envisage that the Department of Occupational Safety and Health (DOSH) would be headed by its own Minister and Deputy Minister. The Deputy Minister of the Department would oversee the activities of the various Divisions. We recommend



# RECOMMENDED STRUCTURE

FIGURE 1



that the Department be subdivided into five divisions. These would be named the Occupational Health, Education, Inspection, Research and Development and Administration Divisions. Each would be headed by a Director. Our recommendations as to the functions and duties of these various Divisions are spelled out in more detail in later Sections of this Part of our Report, and it is accepted that the necessary support personnel would be provided to staff these Divisions.

We have suggested that the Workers' Compensation Board retain its autonomy with respect to claims, assessments and rehabilitation and continue to report directly to the Legislature through a Minister, in this case, the Minister of Occupational Safety and Health.

As a first step to setting up this new Department we recommend that the Division of Industrial Health Services of the Department of Health and Social Development, be transferred to form the nucleus of a Division of Occupational Health. We will discuss the expanded role of the new Division in a later Section entitled "Occupational Health Services".

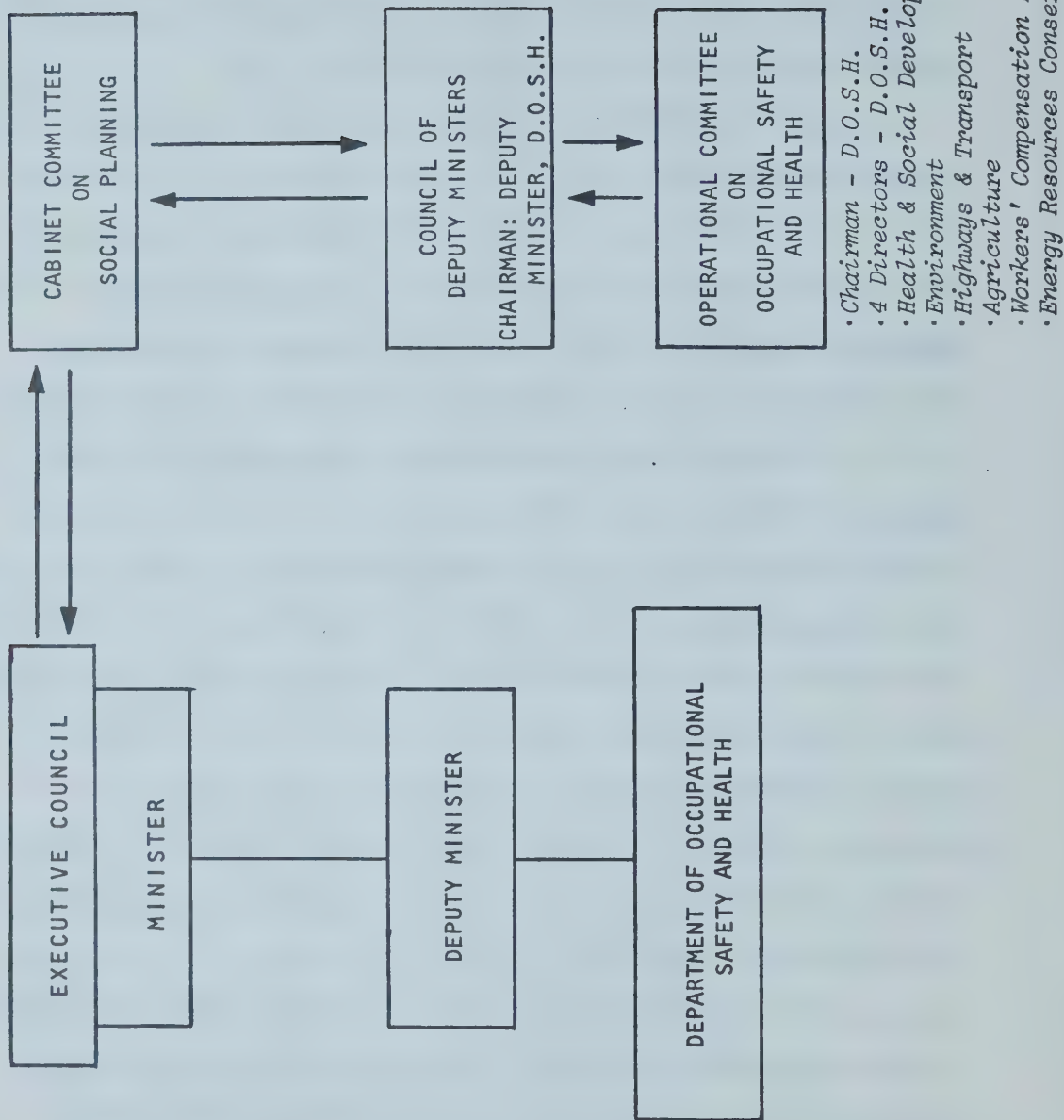
We would, therefore, recommend the transfer of both the Accident Prevention Department of the Workers' Compensation Board and the Inspection Services Division of the Department of Manpower and Labour to form the basis of the new Inspection Division of the Department of Occupational Safety and Health. We also recommend the transfer of the Mines Safety Inspection staff from the Energy Resources Conservation Board to this Division of the new Department in order that a more unified approach to the safety inspection field may be achieved. We will also discuss the new role of this new Division in the Section entitled "Inspectorate".

The principle of "tripartite" participation namely, government, labour and management will be reflected in the thrust of the new Department.

For example, we recommend the creation of joint safety committees in the next Section of our Report entitled "The Worker and the Work Site". We suggest these committees should register directly with the Inspectorate and work closely with this particular Division.

It is important that the programs of the Department of Occupational Safety and Health (DOSH) be closely co-ordinated internally and that the Department in turn develops strong linkages with other departments who have coinciding responsibilities. To ensure these are in fact developed there should be an "Operational Committee on Occupational Safety and Health" established with its membership made up of personnel at the Division Chief level from the various government departments involved (Figure 2). This Committee should be chaired by a Division Director from the Department of Occupational Safety and Health and meet on a regular basis. The four operational Divisions of the new Department (Inspection, Research and Development, Occupational Health and Education) will be represented on this Committee along with representatives of the Workers' Compensation Board and the Departments of Health and Social Development (Provincial Board of Health), Manpower and Labour, Environment, Highways and Transport and Agriculture. The Energy Resources Conservation Board should also be invited to participate.

The function of this Committee would be to deal with matters in the occupational safety and health field that cut across standard departmental lines and to ensure interdepartmental communication, co-ordination and information exchange in areas of common interest and concern. The Committee itself should have a small continuing secretariat located within the new Department. The Committee will refer matters





requiring policy direction to the Council of Deputy Ministers referred to in the next paragraph as well as report to this group on all other subjects the Council deals with.

"The Council of Deputy Ministers" should be chaired by the Deputy Minister of the new Department and meet on a regular basis. It will be made up of the Deputy Ministers or the senior official from those departments serving on the "Operational Committee" mentioned previously. The Council of Deputy Ministers should provide direction to the Operational Committee and give guidance on problems at the policy level. This Council will report to the existing Cabinet Committee on Social Planning (Figure 2).

The Commission agrees with those employers who subscribe to the policy that the provision of an effective safety and health program is part of the cost of doing business. We feel that the Department of Occupational Safety and Health should make a substantial contribution to the creation of a healthy and safe environment at the work site. We believe it should follow, therefore, that some of the functions carried out by the Department should be paid for from levies on the employers by the Workers' Compensation Board. In other words, we would recommend that the budget of the Department of Occupational Safety and Health be made up of contributions both from the general revenue fund as well as from the payments made by employers on assessment by the Workers' Compensation Board.

It is imperative in our view that the interests of personnel now on the staff of the Workers' Compensation Board, the Energy Resources Conservation Board, the Department of Manpower and Labour and the Division of Industrial Health Services of the Department of Health and Social

Development, who are presently performing functions that we recommend be transferred to form the new Department, be safeguarded. Again we would emphasize that it is people who will make this new Department work and great care should be taken in selecting its key personnel. We recommend, therefore, that the government through the Minister of Manpower and Labour select a small, knowledgeable, highly skilled and independent implementation committee for the purpose of giving immediate attention to effecting the major organizational changes suggested in this Report.

We feel it is most important that the private sector also be given an opportunity to have a voice in the setting of priorities and the development of programs in the occupational safety and health field. This input can also be invaluable in monitoring and evaluating ongoing programs. We wish to suggest a number of ways the government and the new Department might facilitate this.

Your Commission has from the outset emphasized that decisions with respect to occupational safety and health should be made by those directly involved. If this is not feasible, then they should at least be allowed to participate at some stage of the decision-making process. We have felt that "tripartite" involvement of the public wherever possible through the government, employers and employees is necessary to maintain the credibility of the system.

Your Commission entertained the possibility that the existing voluntary safety association structure in Alberta might be revised to facilitate input to the development of departmental policy and programs by modifying the organization of the safety associations in a manner that would allow worker participation. This would in effect create

"bipartite" associations based on membership from different industry sectors. If this approach were to be followed, it would be the responsibility of these restructured safety associations to make their views known to the Department on all matters relating to the formulation of regulations, standards and other relevant activities.

This concept would differ somewhat from the one followed in the Province of Ontario where the Workmen's Compensation Board there offers formal support to various safety associations by providing them with administrative and financial assistance. The individual associations thus maintain a degree of independence with respect to formulating policy but they have not as yet sought to give workers a voice in their operations. Such structures are "functionally designed" and are able to offer advice on matters of occupational safety and health as well as to act in an educational role through the employer to the employee. It was a feeling of your Commission, however, that such structures are not suitable for the Alberta situation.

We do feel, however, that input into the new Department from the private sector is necessary. The alternate solution that we recommend is the establishment of a body through legislation to act in an advisory capacity to the appropriate Minister on matters relating to occupational safety and health (Figure 3). We suggest this body be called the "Minister's Occupational Safety and Health Advisory Council".

This Council would consist of permanent members nominated by and representing the public at large, the employer and the employee. The membership, for example, might be made up of two persons nominated from each interest group so that the Advisory Council would ideally consist of six permanent members. Whenever any problem concerning occupational

# EMPLOYEE, EMPLOYER AND PUBLIC INVOLVEMENT

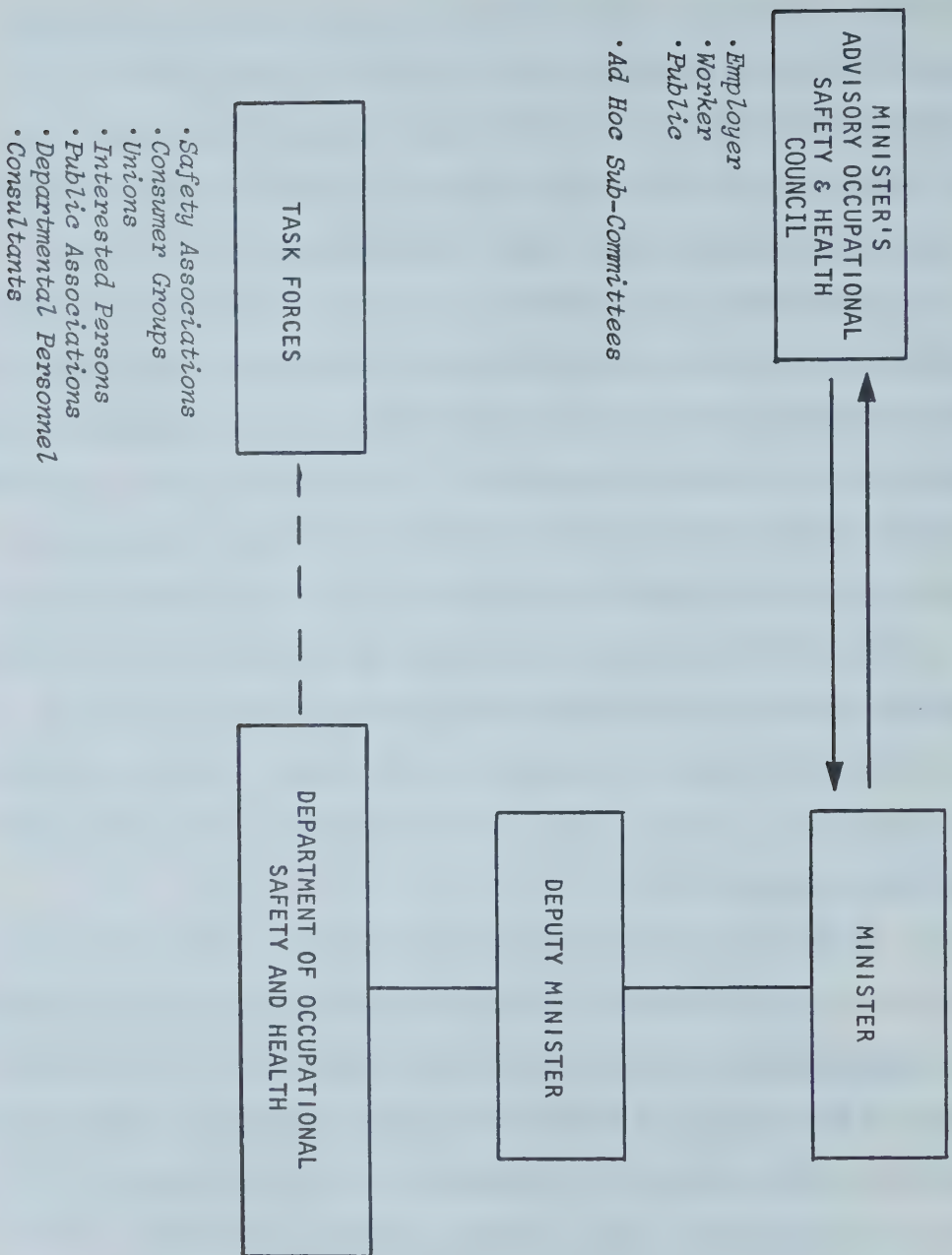


FIGURE 3



safety and health was brought to the Council from any source, whether it involved a matter of policy, operations, or for that matter, any related item requiring review, the Advisory Council should deal with it. If the group were unable to resolve the problem for any reason it would be empowered to establish separate "ad hoc" sub-committees. These committees would in turn consider and make recommendations on the matters referred to them by the Advisory Council. These "ad hoc" sub-committees would also include representatives from labour, management and the public and upon completion of their deliberations pass their recommendations on to the Council for consideration and possible transmittal to the Minister.

Crucial to the successful operation of the Council and its accompanying "ad hoc" sub-committees are certain important principles which would form the basis of its terms of reference. These of course would be established at the discretion of the Minister.

(1) The Minister's Advisory Council should be made up of members appointed by the Lieutenant Governor in Council and will be composed of representatives of workers, employers and the general public.

(2) These members are to serve for a period of two years and will be eligible for reappointment. However, half the membership should be rotated annually in order to ensure continuity.

(3) The Advisory Council may offer advice directly to the Minister, however, when the information upon which to base its advice, is unavailable from within its resources, it would authorize the formation of an "ad hoc" sub-committee. The Minister may also refer matters directly to the Advisory Council for consideration.

(4) Any problem raised by any one of its members should be dealt with by the Council. If for any reason it cannot deal with the problem, then it can authorize the formation of an "ad hoc" sub-committee to do this.

(5) The Advisory Council should publish an annual report which should include an outline of its activities and the disposition of the various matters brought to its attention.

Under this recommended structure it can be seen that the presently constituted safety associations, the unions involved in safety programing, and the various public associations and consumer groups may all serve as sources of expertise from which members of both bodies might be selected.

Problems to be considered by this Advisory Council may originate from any source. They might be submitted by the Minister, officials of the new Department of Occupational Safety and Health, the work site safety committees, the safety associations, the labour unions, the consumer advocate groups, or the general public.

Your Commission is also concerned, however, that the Department of Occupational Safety and Health itself will both have access to and be responsive to the views of labour and management. When new standards are to be established or regulations to be enacted it is highly desirable that the Department have the means by which it can elicit and have the benefit of advice from the private sector. We recommend this could be achieved through the establishment of "Task Forces" selected and brought together from the appropriate areas in the private sector by senior officials of the new Department (Figure 3). Membership on these "Task Forces" may be drawn from safety associations, labour unions, consumer groups, and private consulting firms. It is expected that staff from the new Department

would also participate as members of these groups. The "Task Forces"  
would also serve a useful role in helping to minimize difficulties in  
obtaining the acceptance of these standards and regulations when they are  
implemented. The "Task Force" functions as a one-shot "problem solving"  
group dealing with specific matters which are usually of a technical  
nature.

We should emphasize again that your Commission would like to  
see prime emphasis on the resolution of difficulties right at the work  
site. We feel that "bipartite" involvement working towards this objective  
should occur first at the level of the joint safety committee. This is  
dealt with in more detail in the next Section entitled "The Worker and  
the Work Site". In practical terms, this resolution means that a  
"non-adversary" safety committee will hopefully be able to resolve most  
of the difficulties that might arise relative to worker safety and health.  
We believe the present "adversary" system is inherently destructive and  
cannot continue.

When matters arise that cannot be resolved in this joint manner  
the Department should be in a position to make inspectors and other  
necessary technical personnel readily available in an attempt to resolve  
the problems. This move should be sufficient to ensure that necessary  
corrective action ensues in the majority of such cases.

However, we recognize that unusual or controversial problems  
at the work site will occur that cannot be resolved by the inspectorate  
and other technical personnel of the Department or alternately by the  
joint safety committee. These difficult problems must then be tackled  
by the Department of Occupational Safety and Health taking advantage of  
all its resources. The complexity of the problem may require appropriate

research. On the other hand it may be necessary to work through the tripartite involvement at the "Task Force" or the "Advisory Council" level previously mentioned. Hopefully the majority can be handled internally within the departmental structure.

In summary then we have recommended the establishment of a tripartite "Minister's Advisory Council" as well as the departmental "Task Forces", to ensure the involvement of the private sector in the work of the new Department. The former would act as a policy recommending Council to be established through legislation while the latter would serve as a technical "problem solving" group set up by the Department on an individual basis.

We are of the opinion, however, that the existing safety associations in the province will still have a continuing role to play in promoting occupational safety and health programs in the various areas they represent. We have noted that there are many types of "safety associations" presently in existence. Some are incorporated in their own right while others function rather as extensions of larger associations such as the Canadian Petroleum Association and the Alberta Construction Association. Still others are made up of representatives drawn either from various industries or from organized labour. The latter group actually function on a voluntary basis insofar as attendance is concerned.

The objective of all these associations, however, is to encourage and promote methods and procedures leading to increased safety protection and health. The associations also collect, correlate and distribute informative material and conduct educational programs.



Your Commission feels that while these associations are generally not structured in the tripartite manner which we favour, they still fulfill a very useful role in allowing members to discuss and deal with matters of common interest related to safety and health. They also provide a forum for the exchange of information on approaches designed to eliminate unsafe and unhealthy working conditions. Plant visits and seminars are also organized on a regular basis by some associations. At the present time, a number are provided with individual company accident frequency and severity rates by the Workers' Compensation Board which are useful for comparative purposes within an industry.

Your Commission recommends, therefore, for all these preceeding reasons that the existing voluntary employer associations and labour organizations should be encouraged to continue to operate but that they not be given direct financial assistance by the new Department of Occupational Safety and Health.

The associations could still assist the Department in a number of ways. The associations could comment, for example, on proposed changes or additions to standards and regulations and assist in the development and carrying out of educational programs and seminars. As we mentioned previously, association members could also serve on the "Task Forces" we have discussed that are set up by the Department to deal with specific problems and situations.

We feel it is appropriate to make some general comments regarding the scope and coverage of the new Department which we have recommended. In our investigations it came to light that a significant number of the work force in Alberta are not covered by the Workers' Compensation Act

and its applicable safety regulations. We also discovered that our existing occupational safety and health regulations do not provide universal coverage to all persons. Persons employed in agriculture, in certain professions and those who are self-employed are generally not within the scope of both these programs although voluntary coverage may be obtained upon application to the Workers' Compensation Board. Either through lack of interest or knowledge or because of financial considerations, very few have seen fit to obtain this coverage. Only about 100 agricultural establishments, for example, have opened accounts with the Workers' Compensation Board.

Employees falling within federal jurisdiction including the federal civil service are covered for workers' compensation benefits but their safety and health concerns come under the Canada Labour Code.

All employment carries a certain amount of hazard which cannot be totally eliminated, consequently some type of statutory protection becomes necessary. We have received submissions and suggestions that workers in all types of employment be covered by applicable safety and health legislation and workers' compensation benefits and your Commission is in agreement that this objective should be the goal of our society. In the Section entitled "Occupational Health Services" we have outlined the needs of the worker which we feel are common to all in our work force. The fulfillment of these needs would no doubt result in increased costs to industry and the taxpayer, but if the spirit and intent of this Report is met, there should be a considerable resultant saving in treatment, rehabilitation and income protection costs.

We found that some of the most hazardous occupations are outside the scope of the Workers' Compensation Board or existing safety and health regulations. The most obvious is the agricultural industry where self employment is predominant. The farm environment differs from that in industry in many respects. The farmer is usually his own manager. The farm family, including the very young and the aged, are exposed to the danger of machinery and farms are often isolated from repair services and from medical facilities. The nature of agriculture also demands that at certain times of the year farm workers must spend long hours doing repetitive type of work in conditions of heat, noise and vibration.

Farming is still a relatively hazardous occupation and we were advised that deaths from machinery accidents have not fallen in recent years despite a decreasing farm population. We recommend that the matter of farm safety be a priority item for the attention of the new Department in co-operation with the Department of Agriculture.

Your Commission initiated consultations with farmer organizations when no response or representations were received at our public hearings. One major group, was concerned about the financial obligations they would have to assume to obtain workers' compensation coverage. Another group indicated that it had not yet developed a policy on the question.

Discussions with the Alberta Farmers' Advocate raised some very real concerns over the question of occupational safety and health hazards. The use of dangerous chemicals has received particular attention and investigations are currently in progress to determine the use of pesticides and herbicides in agriculture. Another item of significance involves the spraying of a polyurethane base insulation

material to the interior of farm buildings.

We have commented previously on employees working in Alberta but under federal jurisdiction. These include for example those working in interprovincial transportation, the federal civil service and certain financial institutions. While most of these workers are covered by workers' compensation, the application of safety and health regulations appears to be far from satisfactory.

Consultations are underway between the agencies and departments of the federal and provincial governments to attempt to arrive at acceptable arrangements covering work site inspections and the application of occupational safety and health standards and workers' compensation coverage. We are hopeful that these consultations would result in a uniform application of legislation. We suggest that, for the present, the more stringent of the federal or provincial regulations should apply. The compounding of confusion can be avoided just as it has been with those international or national companies who operate successfully under codes of other countries and other provinces. We believe that the differences will be minimal and that the arrangement will contribute towards the development and adoption of national codes across Canada. It should also encourage co-operation in research and standard setting that would be most beneficial.

While our terms of reference do not specifically include a review of the Workers' Compensation Act, we are concerned with its application with respect to those who must drive to and from their place of employment where public transportation systems do not provide



convenient service. If they are covered under existing workers' compensation legislation, they may possibly establish a right to workers' compensation benefits if they are injured while travelling in the course of their employment. There are many who are required to travel in the course of their employment under the same circumstances, yet they receive no monetary consideration from their employer, consequently, they are unable to establish the right to similar benefits.

Some countries have adopted the practice of "portal to portal" coverage for workers and this concept was put forward by some unions as being appropriate to the Alberta scene.

Many questions have been raised as to whether or not this concept can be suitably programed, administered, controlled and regulated. Your Commission would suggest that the Workers' Compensation Advisory Committee as well as the Select Committee of the Legislature examine the feasibility of the introduction of this concept.

In summary, your Commission recommends that all legislation and services of the Department of Occupational Safety and Health apply to and be available to all workers including the self-employed. In establishing universal coverage, DOSH should aim for maximum involvement, exempting only those to whom no effective control can be exercised, such as those in domestic service. Even then, some duties should be imposed on their employers to provide reasonably safe employment. The implementation of specific programs or policies should only be effected after consultation with those groups not

presently covered. Assurance must be given that implementation will not detract from private insurance schemes or other legislated benefits. Integration, rather than pyramiding of benefits and services, should be the ultimate objective so that no severe economic dislocations occur to employers or employees. Individuals or groups should still be at liberty to secure extended protection if they so desire by whatever means are at their disposal.

We further recommend that the cost of universal coverage be equally apportioned and assessed on all employers either in the private or in the public sector. Those who now pay only for the basic cost of workers' compensation benefits or who pay for inspections on a "fee for service" basis should also be required to contribute the proportionate share of the total costs of the Department of Occupational Safety and Health as do those industries who are now assessed by the Workers' Compensation Board.

Universal coverage of all workers and the uniform application of occupational safety and health services and regulations, should result in a "totally co-ordinated program of occupational safety and health functions for Alberta" which is our ultimate goal.

### PART III: ANALYSIS AND RECOMMENDATIONS

#### Section 2: The Worker and the Work Site

At no time in history has man been more conscious of his environment. There is a growing determination by many that harmful factors arising from the environment must be neutralized and controlled. Each worker may spend a considerable time at his work site in an environment that is often not understood by him, his family, his neighbours or by the community at large.

Each day that a worker goes to his place of employment, he may encounter many potential hazards. They could be the ladder he uses to climb to the top of a roof; a guard on a machine; the chemical substances he uses or processes; the contaminants in the air he breathes; or the unsafe acts of his fellow workers. He is expected to do his job well and it is essential that he does it safely for his own sake as well as for that of his fellow workers. Unfortunately, he may not know how to perform safely or he may be unaware that he is working unsafely while mistakenly assuming a safe work practice. With the increase in the complexity of work and the introduction of new equipment and materials, the potential for more and different types of work related accidents and illnesses increases. The average worker may find much of this difficult to understand or recognize, particularly if he is left on his own.

A worker should take responsibility for his own safety and health, and recognize his contribution toward the safety of his fellow workers, but he can only do so if he is working in a safe environment and is properly and adequately informed and equipped. He should be

informed, therefore, of all safety and health hazards at the work site and be adequately trained in safe work practices and provided with protective equipment where necessary. "Once around" initial training or a brief indoctrination period is not sufficient.

Your Commission is impressed with a particular method of continuous training promoted by many employers. It is known as the "tailgate" or "toolbox" meeting and involves the entire work crew. These meetings or conferences are held on a regular basis, usually once a week, at the beginning of a shift. In a few minutes, work tasks and responsibilities are discussed and assigned, interspersed with remarks on safe practices or hazards which may be encountered. Each worker is encouraged to ask questions and make suggestions. These meetings do not take much time and have proven very worthwhile in promoting safety and understanding work methods, as well as contributing towards job satisfaction and efficiency, two important considerations in today's world of work.

We would like to relate two examples of instances inviting accidents and poor health, which the Commission observed among the many noted on our visits to construction and other work sites.

(1) A construction worker was seen wearing thin soled open toe sandals. It appeared that in doing so he was subjecting himself to a smashed toe or a nail in his foot. It was not our privilege to ask him why he was not wearing adequate work boots. He may have had a corn on his foot or some other ailment he was trying to protect. Undoubtedly, he had placed himself at risk.

(2) A second worker was observed in a very noisy machine room with his ear plugs dangling from his hip pocket. When asked why



he was not wearing them, he replied that he needed to hear the normal whine of the machines to ensure they were functioning properly. This worker was obviously inviting permanent hearing impairment, not realizing that properly fitted ear plugs would eliminate the damaging sound waves and still permit him to hear the machines or the voices of his fellow workers.

Your Commission believes that the ultimate success in improving occupational safety and health begins with efforts arising from co-operative personnel at the work site. There should be sympathetic and knowledgeable leadership and the worker should co-operate with the supervisor. Obviously, these two individuals do not reach this stage unless safe practices, like trade skills, are nurtured. It is also common knowledge that a major influence in ensuring this co-operative attitude towards good safety and health practices is the declared policy and active support of the chief executive.

Those individuals and groups who made representations at our public hearings agreed that an effective safety and health program is essential at the work site. It should be designed to educate the worker by providing safety and health knowledge. It should also cultivate an awareness of the work environment with respect to physical, chemical or biological risks, together with an understanding of ergonomics and even an appreciation of the quality of work life - high sounding as that latter statement may seem. When we refer to ergonomics, we mean the approach which takes into consideration the total physiological as well as psychological demands of the job on the worker.

It is the view of this Commission that employers and employees

must be willing to understand and solve problems together in order to deal properly with matters relating to safety and health. Our investigations and observations show that this cannot be accomplished satisfactorily in any other manner. In some jurisdictions safety and health concerns are dealt with in a manner that perpetuates the "adversary" method. There is little or no consultation between the government agencies, employer or worker. Under such circumstances inspectors can only rely on their statutory authorities and hand out citations of violations of safety and health regulations to management. Employers often firmly resist granting workers a meaningful say and the worker will complain to anyone who will listen and often take a combative posture. The confrontation approach to safety and health is not effective and often is counterproductive.

In contrast, countries such as France, the Federal Republic of Germany and Sweden have instituted a co-operative method to solve safety and health problems. Employers and employees are encouraged to work out their problems together and a structure is provided in each case to facilitate this. The Commission recognizes this as a practical and productive approach for we feel that employers and employees have a joint and equal responsibility in promulgating safety and health practices and programs.

If employees are to have joint responsibilities and to be ultimately accountable for their own safety, then it follows that they must have an effective voice in determining policies and programs at the work site. There appears to be a lessening acceptance of an authoritarian type of management. The worker does want to be involved and to have a say. Unless he is, the evidence clearly indicates that

the program will fail. We feel that the co-operation of labour and management and also of government, where indicated, has advantages that greatly outweigh any concept of an "adversary" system in instituting and implementing safety and health programs. Where employers and employees are unable to share the responsibility, these latter situations will undoubtedly develop. In our opinion, solutions arrived at in this manner are to be avoided.

The growing practice of "co-determination" which we observed in operation in Sweden and the Federal Republic of Germany, plays a prominent role in the field of safety and health at the work site in those two countries. We believe it also has a place here in Alberta and we are firmly convinced that the "adversary" system of promoting and executing safety and health programs is no longer effective and is out of place in our modern society. Our challenge would appear to be that of recommending an organization at the work site that will permit the views of employers and employees to be placed before each other in an acceptable and productive way. To meet this challenge, we recommend the formation of Joint Safety and Health Committees at work sites. We will often refer to this structure in our Report as the Joint Committee. We will describe in a general way the manner in which these committees might function in the following part of this Section of our Report.

Enlightened management accepts the view that it has the responsibility to make the work site safe and healthy. Programs necessary to attain this objective are part of the cost of doing business. Indeed, it has been proven that such programs significantly reduce the cost of operations in the long run. The hazards of work and the work site should be known to employers and employees. Government,

through its agencies, must make services available to assist employers and employees. It is the interaction of these three parties that will make safety and health programs effective. The type of interaction involving management, labour and government may vary from one work site to another just as safety and health programs may vary at these sites. The size of employers and their work force also varies greatly in the province but the majority of work sites are relatively small. The larger employer may now provide services that a smaller employer cannot.

Your Commission recommends that there must be certain essential services and programs available to all work sites. They are:

(1) The maintenance of a 24 hour service by the Department of Occupational Safety and Health, from which any employer or employee may secure relevant information or address any query regarding safety and health practices, regulations and concerns.

(2) All employers should provide a safety indoctrination program particularly for new employees. In addition, employees should be advised of any particular hazards at the work site and the source and availability of safety and health information and guidance. Such information should be displayed on bulletin boards and serve as part of the indoctrination program.

(3) An employer should advise his employees of the necessary precautions and safe work methods to be used in the handling of materials and products used or manufactured at the work site. The employer should satisfy the Department of Occupational Safety and Health as to their adequacy

(4) Provision should be made for all work sites to be inspected regularly. Arrangements should be made to provide a system of voluntary



regular self-inspection. In smaller establishments, special consideration could be given to a co-operative method of inspection, using persons from other similar work sites. At the outset, in order to institute an effective self-inspection program, the services and assistance of the Inspectorate and Educational Divisions of the Department will be essential.

(5) The World Health Organization and the International Labour Organization emphasized that job satisfaction appears to have a strong influence on accident frequency. A worker will perform more efficiently and safely if he is suited to his job and is happy in his work. The Department of Occupational Safety and Health, employers and the workers organizations should be expected to actively pursue improvement in the quality of work life.

Your Commission firmly believes that the cornerstone of an effective occupational safety and health program must be a meaningful employer-employee relationship. We therefore recommend that a Joint Safety and Health Committee be established at all work sites, unless specifically excused from having one by the Department of Occupational Safety and Health.

The International Labour Organization strongly supports the establishment of Joint Safety Committees. In its Encyclopedia of Occupational Health Safety it reports:

"As early as 1929, Recommendation No. 31 of the I.L.O. on the prevention of industrial accidents recommended attending conferences on accident prevention and that the creation of works safety committees should be considered. On all sides and in most countries it is now recognized that safety and health can be achieved only by the joint efforts of governments, employers and workers and that safety and health committees at factory level have a vitally important part to play. Where unionism is strong, the workers' representatives on these committees tend to be union members. In France, for example,

joint committees on health and safety are obligatory: the workers are not necessarily represented by the unions but may well be in many cases. Safety and health committees are not only valuable in dealing with practical problems but also help to stress the joint responsibility of employers and workers and to encourage safety consciousness among the workers."

We recognize that it is desirable to have a flexible approach towards the establishment of such committees, however, there are certain goals to which they should then direct their attention. The Committee should operate in an atmosphere of co-operation in which problems relating to occupational safety and health may be solved. In addition, they should provide easy and effective lines of communication between management and the work force. They should be the focal point in those processes designed to establish a positive attitude towards safety and health at the work site and to inform workers about the health hazards of their work and the work site. It will be appreciated that in an ideal setting, an effective committee serves as an "accident prevention" body, health inspector and consultant to the worker and the work site, as well as a source of information for those charged with overall supervision of occupational safety and health.

There are certain general guidelines we would like to present with regard to Joint Committee structure.

(1) The Committee should be chosen from management and from those outside the scope of management, effectively representing those who have selected them. In larger establishments, the Joint Committee would have equal numbers from management and the work force, with each significant section or department represented. It is possible that in smaller establishments, management may consist of only one person but

there may be two or more Joint Committee members from the work force. If a voting procedure becomes necessary in these cases, management would have equal voting power.

(2) In order to secure the necessary interest and involvement of management in large establishments, the department head or supervisor of a section or department should be a member of the committee, when that section has a member of the work force on the committee. This would facilitate the speedy resolution of a problem in that section or department.

(3) In exceptionally large operations it may be appropriate to have several sub-committees functioning under the direction of the Joint Committee.

(4) Members selected to serve on the Joint Committee should be able to relate to the work site, have an interest in the subject matter and should serve long enough to become proficient. They should not be rotated automatically or indiscriminately at regular intervals. There should be a spirit of interested voluntarism in the whole field of safety and health programs, including membership on the Joint Committee.

(5) There should be Co-Chairmen, one from management and one from the work force, either of whom would be empowered to call meetings. The Joint Committee should meet regularly and all time taken to discharge committee responsibilities during normal working hours would be considered as actual time worked with pay.

(6) Each committee should be registered with the Department of Occupational Safety and Health in order to ensure lines of communication between the department and the committee.

(7) There should be a consultative position within the committee that would be filled by a representative of the work site's occupational health care personnel. This representative should be on the committee by virtue of the independent service provided and not represent either the management or the worker group (e.g. the plant nurse or safety engineer).

(8) There should be a position within the committee that would be filled by an Inspector when he visits in the course of his duties. This position need not be restricted to an Inspector, but would be open to any agent of the Department of Occupational Safety and Health who has reason to visit the work site in the course of his duties. This would facilitate effective liaison between the Joint Committee and the Department.

In a similar manner we should like to present guidelines as to the Joint Safety and Health Committee's functions.

(1) The Joint Safety and Health Committee's prime responsibility is to identify and attempt to solve safety and health problems at the work site. Consequently it must be involved in the promotion of safety and health education as well as in the development of indoctrination programs for new employees. It should be aware of all the compounds and substances used or produced at the work site and be aware of the necessary precautions for their safe use. When this information is unavailable either from the management or manufacturer, the committee must be able to obtain this information from the Department. The committee should be assured that employees new to the work site have received adequate safety training and have been made aware of the health hazards



of the work and work site. To make and keep themselves credible, the members of the Joint Safety and Health Committee should also have access to information from relevant research, laboratory testing and enforcement facilities. They should also keep informed on other related developments and make themselves available for training in the safety and health field.

(2) Another major function of the committee is that of a monitor of both the work site and work practices. The committee should make arrangements to inspect the work site on a regular basis. To do this, it must make periodic inspections of the work site and the equipment designed to protect the worker. The committee should also be able to monitor those aspects of the work site that constitute a special risk, either on their own initiative or in co-operation with officials of the department. For example, noxious fumes, particular dusts or noise levels may be monitored by special equipment installed for this purpose. The committee should also monitor the illness and accidents that result from the work site. To accomplish this it should have access to those non-confidential reports kept relating to these events. As a result of their review and investigations, the committee should be able to recommend revisions to rules and procedures. This would require frequent consultation with the Occupational Health Service Division of the new department.

(3) The activities and meetings of the committee must be recorded. The nature of the record should indicate that the Joint Safety and Health Committee is functioning in a meaningful way. It should keep minutes of its meetings indicating the work that has been done, the problems that have been encountered, the solutions proffered and the items that remain unresolved. Recommendations should include

a target date for abatement of hazardous conditions and practices. The design of this record should be made in consultation with the Department of Occupational Safety and Health since one of the principal reasons for recording this information will be for subsequent use of the Department in developing statistical, preventive or other related programs. Indeed, some of the consulting service and the direction taken by the Research and Development staff will use the information generated by the Joint Safety and Health Committee. These minutes should be made available to any authorized agent of the department and copies should be posted on the bulletin boards of the work site. Where appropriate, copies might also be distributed to unions representing workers at the work site or employer associations, in order that these groups may more effectively conduct their own programs of safety and health. Periodic reports should be made to the department on the information generated within the minutes. These formal reports should be made not less than once a year.

(4) The Joint Safety and Health Committee will serve as an effective liaison with the various inspectors. Representatives of the committee must accompany the inspector when he responds to a complaint or to a request for an investigation. He, in turn, must make his presence known to the committee. Ideally these inspections should also serve as an educational process for the committee members. Any reports the inspector makes relative to his inspection should go to the committee as well as to management.

(5) Before initiating any formal proceedings under a collective agreement regarding grievances and disputes arising from unsatisfactory safety and health conditions, an employee or an employer should be

expected initially to refer such dispute to the committee. This is the first formal avenue of appeal. If the committee cannot solve the problem and deems it necessary, it might invite a representative from the Department to assist in resolving the problem. However, if the employee or employer still chooses to file formal proceedings, the Joint Safety and Health Committee should be represented at such meetings.

(6) The committee should, however, avoid the confrontation approach. The Commission believes that there is great scope for Joint Safety and Health Committees but their institution and development needs care and nurturing, along with management interest and encouragement.

We believe that the Joint Safety and Health Committee structure at construction sites is worthy of special consideration.

Workers in the construction industry are extremely mobile and since they are employed in an environment which is constantly changing, a co-ordination of safety and health committees is not only desirable but essential. The implementation and operation of Joint Safety and Health Committees therefore warrants particular attention.

We have recommended that each place of employment be required to establish a Joint Committee, unless specifically excused from doing so by the Department of Occupational Safety and Health. General contractors or sub-contractors should be subject to the same provisions.

In many cases in the construction industry, it may not be feasible or practical for a Joint Committee to function particularly at the sub-contractor's place of business which often consists of an

office or small warehouse. His employees may not be employed at their employer's base of operations but rather work at such places or sites coming under the control of the owner's agent or the prime contractor.

With this diversification of work sites and ever changing methods of construction it is only logical that an overall Joint Committee be established at each work site. Normally, a prime contractor engages the various trade sub-contractors and co-ordinates the work to completion or until portions of the job are turned over and accepted by the client. We believe, therefore, that in these instances the prime contractor should be responsible for the implementation and regular operation of the Joint Committee.

Each sub-contractor who is involved on site would be required to participate through his designated supervisor and his employees would be represented on the committee. The Joint Committee would meet as required and function within the general terms outlined by the Department of Occupational Safety and Health. These committees would be registered with the Department of Occupational Safety and Health and operate for the duration of the project.

It should be relatively simple to develop a procedure for the Joint Committee to become operational from shortly after the commencement of a project. The Workers' Compensation Board is now notified of each building permit as to location, type of project or structure and value so that it can readily exercise its authority. The same notice could be made available to the Department of Occupational Safety and Health along with the name of the prime contractor. The prime contractor would be required to form a Joint Committee as soon as employees commence



work at a site. Each sub-contractor would be added to or deleted from the Joint Committee as he appears on the site or completes his work.

In some cases, the sub-contractor may have sufficient volume of work or employees that his own regular Joint Committee would be established at a site. This Joint Committee would simply be integrated into the functioning of the overall site Joint Committee. The name of each sub-contractor would be added or deleted in the record of the Joint Committee's minutes and any changes would be incorporated. The record and any subsequent additions or deletions would be common knowledge to all persons on site by virtue of being posted and be readily available to the Inspectorate.

Many employers have established regular weekly safety meetings at their job sites, involving all employees and their supervisors. It has been observed and generally accepted that this is a most efficient way of involving workers and creating an awareness in safety and health matters. Suggested changes or improvements which arise from these meetings are not always implemented and this deficiency should be corrected by giving these meetings the same status as that of the meetings of the Joint Committee, with recourse to the Department, if necessary.

The "all employees" safety meeting has considerable merit and should be encouraged. Since it is not always possible or practical to conduct such meetings, then the participation must be delegated through employer and employee representatives to the Joint Committee.

We have mentioned previously that the involvement of employees and their supervisors in safety and health matters by way of "toolbox"

or "tailgate" meetings has also proven effective and should be integrated with the overall Joint Committee. This method allows crews to deal with peculiar or particular situations that may develop in their sphere of activity, which may not be related to the rest of the job.

The establishment of Joint Committees would formalize some of the practices which are now in effect on some of the larger and more complex construction projects. The prime contractor exercises sufficient control to require all sub-contractors and their employees to be governed by a centralized approach to safety and health problems. It can be said that this method is autocratic but because of the interrelationship of workers and employers, we feel that a degree of centralized authority is absolutely essential.

The prime contractor is now held responsible for the actions of his sub-contractors in the performance of the work and compliance with legislated requirements such as mechanics' liens. It would be practical to give this authority to the prime contractor in the formation and implementation of Joint Committees.

Much of the success of a program in the construction industry would depend upon the development of standard procedures in the recording of projects with the Department of Occupational Safety and Health, the establishment of Joint Committee guidelines and functions, the identification of hazards and their correction, and the development of uniform reporting procedures.

The Department of Occupational Safety and Health, in consultation with labour and management, would be instrumental in developing

the necessary format by which minute books, annual summary reports and development of the necessary statistical information would be made available to the Joint Committees and in turn to the Inspectorate.

Those employers who fail to participate or deliberately ignore accepted practices or regulations should be immediately subject to sanctions by the Department of Occupational Safety and Health. Since the prime contractor has the responsibility to carry out an effective program, he must also have the authority to correct any unsatisfactory operations or methods engaged in by the sub-contractor or his employees. If the prime contractor cannot secure co-operation from the sub-trades or through the Joint Safety Committee, then the previously mentioned sanctions should be invoked. Hazardous practices cannot be allowed to continue as they affect other workers on the site.

Where reasonable and effective abatement of hazardous safety or health conditions is not carried out, then the Department of Occupational Safety and Health would of necessity be forced to exercise its authority. This might entail temporary shut down of operations, fines or eventually the loss of a business license of those employers who deliberately ignore regulations. We realize that the Workers' Compensation Board now exercises "super assessment" authority but this is done after the fact and does little to correct existing unsatisfactory conditions.

We feel that the Government of Alberta is deserving of special mention with regard to occupational safety and health

programing as it is the largest single employer in the province. Our information is that the government had approximately 24,000 positions under the Civil Service Act as of December 31, 1973.

We were advised that in April, 1974, the Accident Prevention Department of the Workers' Compensation Board submitted a report entitled "Employee Safety in the Public Service" to the Public Service Commissioner and the Minister of Manpower and Labour. This study had been requested by Executive Council and had as its stated objective "..... to determine the measures that are necessary to reduce the number of on-the-job accidents, work related injuries and resultant costs in the public service". We have reviewed this report.

We found it dealt mainly with physical safety considerations to the exclusion of occupational health matters and makes certain recommendations regarding a new program designed to reduce accidents in the public service. We have said previously that your Commission is of the opinion that if the Government of Alberta is to seek the support of management and labour in implementing a more effective occupational safety and health program for all workers across the province, then the government must take the lead to ensure that its own operations reflect this priority. It appears that very little if any action has been taken with regard to the assessment and implementation of this report and we feel that this apparent inaction is most unfortunate.

Your Commission recommends, therefore, that immediate steps be taken by the office of the Public Service Commissioner together



with the new Department of Occupational Safety and Health and the Workers' Compensation Board to assess the Report regarding Public Service Safety in conjunction with the general recommendations regarding occupational health made by this Commission so that a comprehensive and co-ordinated safety and health program across the public service may be implemented as soon as possible. We believe that the Department of Occupational Safety and Health is the appropriate organization to have the prime responsibility for ensuring the speedy implementation of this program once the general guidelines for it have been established by government.

The Civil Service Association in its appearance before the Commission favoured the requirement of an establishment of a safety committee structure within the government service. We recommend strongly that the government take the initiative and move in this general direction.

We would also recommend that the various departments, boards and agencies of government contribute financially on behalf of their employees to the operations of the Workers' Compensation Board on the same basis as does industry. This would replace the "cost plus" formula that is presently followed. We would suggest that discussions be undertaken with the federal government to examine the possibility of extending this recommendation to cover those operations of the senior government in Alberta that have coverage from the Workers' Compensation Board.

PART III: ANALYSIS AND RECOMMENDATIONS

Section 3: Education

Without downgrading the government's responsibility to create and enforce safety and health regulations, your Commission views leadership in safety and health education as one of the most demanding of government responsibilities. The latin root of the word "educate" (educere; e-, out & ducere, to lead, draw or bring) reveals the true requirement of government to lead out of, in this case the lack of knowledge, for it is well recognized that no amount of law making itself prevents accidents.

During the preparation of this report two workmen lost their lives in the sewer system of Edmonton. One workman was lowered through a manhole and fell out of his safety harness into an oxygen starved atmosphere where he lost consciousness and died. A second man was sent to his rescue through the same manhole and also fell out of his harness and suffered the same fate. A third man subsequently donned his oxygen mask, properly fitted his safety harness and effected the removal of his buddies, but it was too late for them! The survivor reportedly had 19 years of experience with the City and indicated that he had never received safety training during this time. With blowers and detectors available but not used, with safety harnesses not properly secured, with all the necessary safety equipment supplied - whose was the responsibility to prevent this useless sacrifice of life - the workman's, the foreman's, the manager's, the government's?

Along similar but less tragic lines one of your Commissioners viewed the site of excavation for main sewer lines. The excavation was improperly prepared and protection for the workers was inadequate. The risk of a cave-in was extreme. While the Workers' Compensation Board Inspector went looking for the foreman to notify him of this concern, a cave-in did occur. Fortunately no one was injured. In the subsequent investigation it was established that the contractor had previous experience in excavations, had obtained prior approval from the Workers' Compensation Board as to the methods to be used during this particular excavation and his foreman had been similarly informed. At the time of the accident all these previously approved and recognized safe practices had been abandoned! Why?

In another situation, a Commissioner visited an industrial plant with extreme noise hazards which were recognized and appropriate notices to this effect were posted for all to see. Necessary protective ear plugs were available and instructions for their use offered - but ear plugs were not being worn! The Commissioner was met with an incredible attitude of indifference when he attempted to inform the workers involved. Why?

While it is not our purpose to analyze the anatomy of accidents, we do recognize many of the factors which lead to them; one that is paramount is the attitude of those involved - their level of awareness was low! Accident prevention is not a process of fixing blame, it is the education of all those involved so that they may be made aware of the hazards of their job and act accordingly.

There is no way that a government inspector, an employer or even in most cases, a foreman, can stand over each job. No matter how

well intended is the law, or how good is the equipment supplied to protect the worker, these factors of themselves do not ensure safety. The worker himself must ultimately make use of all the resources placed at his disposal to protect himself. In spite of this, however, the potential for calamity is still apparent. In an ever-increasing number of cases, the complexity of machinery and methods, the use of new chemical compounds, the developing knowledge of the biological effects of the environment of the work site, the fatigue, and the dissatisfaction of the worker, all call for a change in our approach to safety.

Your Commission feels that this change requires a strong emphasis on educational programs to redirect safety and health education to the worker, the public, the employer, the industrial health officer, the government official, the physician, the nurse, the hygienist and the technician. The most difficult and challenging aspect of such education is that of delivering it to the work site in a form which will reach and be attractive to those for whom it is intended.

In analyzing the situation today, your Commission recognizes that the process of safety and health education actually begins in very early childhood. For it to be effective, a great deal depends on parents possessing good safety attitudes and knowledge. More emphasis should be given to adult "home safety" education since evidence appears almost daily in the press that this is necessary. People still bring gasoline and loaded firearms into their homes. They store poisonous products in the cupboard under the sink. They



smoke in bed, and they use extension cords to connect radios and hair dryers in the bathroom. The list of such dangerous practices is lengthy, all involving poorly informed people. Conversely, parents with safety awareness are able to teach their children about home and street hazards. These children in time become workers who owe their safety awareness to lessons learned pre-school, during school and also, if applicable, while serving their apprenticeship.

In school at the elementary grade level, general safety awareness is usually integrated with other subjects but rarely is actual safety instruction as such offered. At the option of the teacher, the student may receive some instruction about "safety" at home, on the street, or at play. During the teaching of "shop" and "home economics", the schools are very conscious of safe practices.

In each year of the education of apprentices in most trades, ten months is devoted to "on-the-job" experience along with one and a half to two months of technical training usually within the Alberta Institutes of Technology. Your Commission enquired about safety education at this level and was informed that during classroom periods, safety is taught as part of the trade. Learning the proper use of tools and machines and proper use of self-protective equipment is very much a part of becoming a journeyman. Safe practices are taught in the context that "the correct way is the safe way"! With regard to creating greater safety awareness, your Commission recommends that during the one and a half to two month period in the Institutes, some sessions should be devoted to basic instruction in occupational safety and health and most certainly to first aid. We also agree with the premise, followed

elsewhere in Canada, that all journeymen must possess a first aid certificate. A portion of this safety course should be directed towards basic safe living and this portion would apply to all trades. The remainder would be directed towards the more specific hazards peculiar to each trade. Instruction should include exposure to and practice with the operational safety committees at the work site, the relationship of the worker to the new Department of Occupational Safety and Health and to the Workers' Compensation Board and an awareness of the various services available to the worker in the general field of occupational safety and health.

Safety education in Alberta is also available at present in a variety of forms through several institutions and organizations. Grant MacEwan College in Edmonton offers an evening course in occupational health nursing. Mount Royal College in Calgary has a safety course for taxi drivers. The Alberta Safety Council conducts a province wide safe bicycling course each spring for approximately 12,000 children. The Council also conducts one week courses in several aspects of motor fleet supervision as well as public re-training of experienced drivers, classroom training for learning drivers, clinics for drivers who are repeat offenders and a motorcycle course for beginners. These courses reach approximately 8,000 people annually. In addition, commercial driving schools train approximately 20,000 Albertans per year.

In a general way then it may be said that a good attitude towards safety and health is developed in persons through their early home and school training. Those reached in this manner by far exceed those who can be reached by any number of specific courses given on this subject.

Once a person has joined the work force effective safety education comes from his peers, employers, union and various safety groups both inside government and outside. On a day to day basis, however, the greatest influence on his behaviour and attitude must come from his peers and employers - fellow members of the work site. Our educational thrust must be directed at the work site and to be successful it must penetrate the present indifference of both management and worker.

Effective education at the work site results from the interplay of many forces. One is the encouragement by management of the promotion of safety and health at work, first by accepting this responsibility at the senior management level and then ensuring that this policy is carried out onto the shop floor. Effective indoctrination programs conducted by the employer should establish an appropriate setting in which other forces can come into play. Each worker should be made aware of regulations applicable to his industry and work place. In addition he should be made aware of his responsibilities and must learn not to perform any unsafe job or work with faulty tools, equipment or material. Many firms have persons, often chosen from middle management, who have developed an ability in the field of safety by natural aptitude, self study or attendance at short courses. These safety specialists are known by a number of names; safety supervisor, safety officer or safety director or if he should be a professional engineer, safety engineer. Their function varies from plant to plant but in general terms, they are an advisor to management, often represent management, work with plant safety committees and conduct courses in various aspects of safety including fire prevention, housekeeping,

defensive driving and first aid. Safety specialists also conduct accident investigations and act as liaison men with the Workers' Compensation Board as well as with all official inspectors from the Workers' Compensation Board, Department of Manpower and Labour, Department of Environment, Department of Highways and Transport and the Division of Industrial Health Services. Obviously anyone working effectively in all these capacities is an exceedingly useful asset at the work site. A successful safety specialist will find that he is called upon to be an educator, psychologist, diplomat, negotiator and leader.

Your Commission foresees the need for more such persons and would like to see a more formal method of instruction if such a program could be made available. In 1971, Humber College, Rexdale, Ontario, inaugurated the first program in Canada to offer formal safety training at the post-secondary level. The program was developed for high school students, is three years in length, and culminates in successful candidates receiving a Diploma of Safety Technology. The basic philosophy of the program integrates the social sciences (motivation, human relations, stress, human factors), management (organization theory, accounting, management by objectives) and technology (mathematics, chemistry, physics, computer technology and occupational health). We were distressed to learn of the serious lack of students. Only two graduated in 1974 and the outlook for the next two or three years is similarly bleak. It would appear that high school students simply do not know of the career opportunities that exist in this field. There is also at this time a critical lack of professional status for safety personnel in



Canada and the certification of Safety Personnel is being widely discussed. We were advised that 1975 will probably be the year in which an anticipated move in this direction is expected.

Mount Royal College in Calgary sponsors an annual North American Occupational Safety and Health Institute focusing specifically upon critical areas of concern to both the safety and health professional. This conference is considered an excellent opportunity for companies and management to strengthen their existing programs and to introduce personnel to the practical aspects of developing a new and effective safety and health program.

The University of Alberta through its Department of Extension offers a three phase program in Industrial Accident Prevention which is intended to provide practitioners and newcomers in the field with a general knowledge of current techniques. Upon successful completion of the course, students are awarded a certificate by the Alberta Association of Safety Personnel. These courses are designed to be of interest to industrial nurses, public health inspectors and others interested in occupational safety and health.

The University of Moncton in New Brunswick has recently added to its curriculum, a specialized industrial safety training course which is compulsory for student teachers seeking a Bachelor of Industrial Teaching degree.

Your Commission endorses these programs and would recommend their development or use by personnel in Alberta to the point where Certified Safety Specialists can be trained to meet both management, labour and government needs.

Even when management has attempted to make the work site safe from health and accident hazards, even though moving parts are shielded, tripping hazards are eliminated, extension cords maintained in a safe condition, fire prevention practiced and fire drills conducted, when physical hazards have been guarded as completely as possible, there remains the hazards of human error - the foreman who failed to explain the job fully; the worker who failed to understand and the worker who takes short cuts on his own initiative.

As we have mentioned previously, one of the strongest forces influencing worker behaviour is his peer group. In the indoctrination of a new worker, hints and suggestions from his fellow workers can reinforce good habits and prevent him from acquiring unsafe ones. In the absence of such reinforcement, safety rules imposed from above are unlikely to be very effective.

Your Commission views the role performed by the safety committee to be one of the most important forces affecting the education of the members on the work site (see Section 2, Part III). The work of these Joint Committees will be reinforced and supplemented by the work of the inspector from the Department of Occupational Safety and Health. As we have pointed out in our discussion of joint safety committees, every visit by an agent of the Department of Occupational Safety and Health including those made by their inspectors should be an educational visit for the safety committee which in turn can disseminate the information provided to the workers at large:

In addition, the worker may also be influenced by his union should he belong to one. Without exception, each trade union has

adopted as a matter of principle a position of concern which can be expressed as follows, "to promote the development of safety and health practices and to protect the safety and health of our members on the job and in the home". This quotation or a variation of it can be found in almost any union constitution or bylaws. Historically trade unions have expressed concern with safety and health by negotiating protective clauses in their collective agreements which may give recognition to "on-the-job" safety enforcement procedures, whether administered by union representatives, job stewards or safety committees.

Some trade unions are financially able to conduct their own safety and health seminars and workshops. Your Commission was invited to attend such a seminar conducted by the Alberta Federation of Labour in Calgary. We were impressed by the educational potential of such meetings but it was also evident to us they require credible, reliable and accurate resource personnel to make them work. We would encourage and recommend further educational activities along these lines and suggest that the resources of the Department of Occupational Safety and Health should be made readily available as a priority to such meetings.

However, in addition to roles played by management, worker and unions and various educational centres there is still a leadership role to be met by government which we see being achieved through the activities of the Department of Occupational Safety and Health. We have recommended a Division of Education within the new Department and in doing so we recommend a transfer of the educational functions presently performed by the Accident Prevention Department of the Workers'

Compensation Board into this Division. We feel that a consolidation of all related educational resources into one government agency will enhance the efficiency, accuracy and credibility of that organization. We were made aware of the educational roles now performed by the Workers' Compensation Board but felt that their present resources and personnel would be inadequate to meet the needs as we see them. We should mention the very successful program of first aid training that the Board has conducted in co-operation with the St. John's Ambulance Association.

The effectiveness of the recommended model of the Department of Occupational Safety and Health is crucially dependent upon the internal relationships of its various components. The appropriate selection of personnel is necessary to ensure this occurs.

Within the Division of Education we see employed talented and highly qualified adult education personnel, innovative safety course developers, artists, writers and instructors, who should be able to carry out diversified educational programs on safety and health. They should be able to direct their attention to the following targets.

A TO THE WORK SITE

- to the worker on specific jobs with special health hazards.
- to the involved unions for further dissemination amongst the work force.
- to safety specialists within larger firms, where applicable, for their use and to industry safety associations and safety councils.



- to supervisory personnel such as foremen and members of joint safety committees.
- to senior management to develop an atmosphere conducive to the development of effective safety and health programs in industry.

B     TO THE PUBLIC

- where appropriate through available media in an attempt to raise the public level of awareness.
- to various colleges and institutes making available its resources for extended education.
- to private safety groups or private consumer advocate groups that have assumed an educational role.

C     TO THE DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH

- to its own staff with a view of "in house" training and upgrading personnel. We see the priority directed towards upgrading present inspectors and training new ones.
- preparation of pamphlets, posters, training films and slides as well as audio-visual tapes as appropriate.

To our knowledge, such an educational thrust has not been apparent in any of the jurisdictions we visited. In our opinion, a broad comprehensive program in occupational safety and health is incomplete without such concerted effort.

It would be wrong, however, to think that all educational activities would or should emerge from just one source. In the performance of their duties, the staff of the Education Division should become aware of needs elsewhere within the province and be able to encourage,

direct, guide and sustain educational efforts of other sources. In our view, a glaringly apparent need is for adequate numbers of professionally trained personnel - be they industrial physicians, industrial nurses, industrial hygienists or technicians and engineers with a knowledge of ergonomics. However, such a shortage is world-wide and to our dismay does not seem in imminent danger of ending! Part of the reason for this shortage may be the relative newness of this field with little awareness of the job potential on the part of newcomers. Add to this present condition our growing petrochemical base as well as an ever-increasing awareness of the benefits of a properly executed safety and health program. It seems certain that the demand for trained personnel and professional people will develop rapidly and then be even more difficult to satisfy. At the moment the demand is low and training facilities are not offered in Alberta in any serious way although Grant MacEwan College is now offering a night course in industrial health nursing. If courses leading to professional qualifications were offered it might be found that not enough students would apply for admittance to warrant the expense of setting up the facilities and establishing appropriate professorships.

We do see, nevertheless, an upsurge in the demand for trained people in this field before we will be able to meet it. We suggest this will occur for a number of reasons:

- (1) Industry stands at the edge of everybody's environment, and the interest in controlling industry's effect on the environment has become a major public concern. This public interest will generate more regulations and a need for more standards. Both in turn will require the attention of professionally trained persons.

(2) Newly revealed and created health hazards will become apparent and there will arise a need to monitor both the worker and the work site and in turn generate meaningful Threshold Limit Values. To be credible, such values and monitoring will require the input of professionally trained persons.

(3) Those who have been or are monitoring exposure to hazards will learn to recognize them and realize they have an obligation to voice their concerns. They will then require the input of professionally trained persons to give credibility to their voice.

(4) Employers will recognize not only their duty to provide a safe and attractive work place but also that productivity is enhanced in the process. When this is achieved, more professionals will be required.

(5) With industrial development we foresee the need for research, education at all levels including the employee, the employer, the unions and safety associations as well as the governmental authority.

(6) More people such as farmers, teachers, provincial and federal employees will call for these services.

We cannot estimate with certainty the quantity of persons necessary to meet these requirements in Alberta, but when a valid attempt is made to do so, we suggest that all of Western Canada be included in the survey. In spite of these reservations, we recommend that the Government of Alberta through the Department of Advanced Education show leadership in establishing courses in safety and health at one or more of the universities or colleges in the province.

We do not think it our place to set the qualifications for such personnel. It is our view that the legitimate role of the

professional organizations involved should include the establishment of acceptable standards of competence. Traditionally the Alberta Medical Association, the Alberta Association of Registered Nurses, the Professional Engineers Association of Alberta and others have assumed this role in their particular spheres of interest. We see the Department of Occupational Safety and Health acting as a stimulus in encouraging these groups to meet this challenge. But in the process of educating the leaders in the art of conveying safety and health knowledge to the areas where it can best be used, we must recognize there will be an interim period when a real shortage of such persons will exist. This shortage now exists all over the industrialized world. As a result, the standards of competence which may be acceptable now could very conceivably be upgraded in the future as more and more persons are trained.

In summary, we consider the whole process of education to be the mainstay of any program of occupational safety and health. Such a program must be directed towards the school and the student, the worker and the work site, the employer and his safety associations and the unions and the public generally. The basic goal must be to raise the overall level of awareness towards all matters relating to occupational safety and health so that people will not find their work hazardous to their health. Your Commission sees a vital leadership role being played by government through the Department of Occupational Safety and Health to co-ordinate all the various educational processes in this field. It should support, guide and direct these towards the ultimate goal, the worker at his work site and stimulate the various professional organizations to establish standards of competence and assume their



traditional role of providing personnel in their special areas of concern. We also suggest that a greater emphasis be placed on safety and health education in the school system.

### PART III: ANALYSIS AND RECOMMENDATIONS

#### Section 4: Occupational Health Services

Occupational health deals with the interaction of the working environment and the individual worker. It is not the exclusive province of the physician, covering occupational health nursing, occupational hygiene, ergonomics and aspects of safety inspection. In 1950 the Joint ILO/WHO Committee defined occupational health. This definition still stands.

"Occupational health should aim at: the promotion and maintenance of physical, mental and social well being of workers in all occupations; the prevention amongst workers of departures from health caused by their working conditions; the protection of workers in the employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological equipment, and to summarize: the adaption of work to man and of each man to his job."

The evolution of occupational health services has varied considerably throughout the world. In North America, especially the United States, the responsibility for health services in industry is primarily that of the employer although trade unions often negotiate such services as part of their fringe benefits. In the Soviet bloc, the Ministry of Health administers occupational health services and concerns itself as much with the fitness of the man for the job as the fitness of the job for the man although there is apparently more to be done in this field. In Western Europe, long established inspectorates administer a well codified law imposing obligations on employers to protect workers, while in some "developing countries" industry itself

organizes general health services for workers and their families.

There are many ways to offer effective occupational health care. In Alberta we should be able to evolve from our present facilities a system that is readily attainable, effective, credible and flexible. Our proposed system of occupational health care may, therefore, be unique to Alberta. In our favour is the absence of long standing traditions which would have to be considered, our small population and the relatively small size of our industry which for the most part is new and young.

In exploring the problems pertaining to occupational health services, your Commission has felt that the focus should be the worker and his work site. Bearing in mind the aims of occupational health, we have identified in general terms the needs of the worker. They are:

(1) That the work site and his work practices are not a health hazard.

(2) A consulting service to give him this assurance when indicated. The service should be credible and readily available.

(3) An educational process whereby his level of awareness of occupational health hazards is raised and maintained. Without such an educated work force no organization, no matter how well it is structured, can be effective in assisting the worker to act in a safe way. In the long run it is by his own acts that he must preserve his health.

(4) A system for monitoring his health to prevent and detect illness where his employment places him at particular risk. This may take the form of periodic physical examinations or laboratory tests. In either case, the worker should know the results of these tests.

(5) Treatment for illnesses arising out of his work.

(6) A method of assessing the effects of illness on him.

The assessment should state objectively and credibly:

(a) The resultant impairment, if any, to his health.

(b) The resultant disability, if any, to perform his work.

(c) The resultant disability, if any, in absolute terms, i.e. in relation to a healthy and whole man.

(7) A process of compensation which takes into account these assessments.

(8) A process of rehabilitation from such illnesses which if unable to restore him to his prior state of health, will aim to restore him to his prior state of earning capacity.

(9) Access to an "intelligence service" that would collate data, statistics, world wide literature and other information relative to occupational health and be capable of transmitting this information to those concerned.

(10) Access to research that will produce realistic standards of working conditions.

To some degree many of these needs can be met with services available today. The Division of Industrial Health Services has developed a consulting capability which is credible and increasingly popular. It is unable to meet the demands placed on it and as currently structured will be unable to do so in the future. The Division offers excellent educational material and an "intelligence service", both of which are limited by the size of staff and other duties. Guidance is



given to physicians who monitor the health of workers in special risk situations and furthermore the Division has the potential to collate data on such workers.

The Workers' Compensation Board has the responsibility to make an assessment as to impairment and disability, to assign compensation based on these assessments and to provide rehabilitation services to a certain extent. The Board is also in a position to develop an "intelligence service" pertaining to its jurisdiction.

Despite these responsibilities there are some concerns.

We were advised that the inspection service of the Workers' Compensation Board is directed at the worker and the work site. It is charged with the responsibility of recognizing unsafe work practices and work sites and offers a consulting service to participating employers in this regard. As the nature of the work site becomes more complex and a realization of the health hazards arising from work practices and work sites become clearer, it also becomes evident that this inspection service is inadequate.

The Division of Industrial Health Services is able to offer its professional and technical facilities to the Workers' Compensation Board with a view to meeting these requirements. This offer has been used with increasing frequency to the apparent satisfaction of all concerned. However, the Division was not structured for this role, and the relationship between these two organizations is inappropriate for this task as viewed by your Commission.

The Workers' Compensation Board is structured to serve participating employers in the field of occupational safety, while the

Division of Industrial Health Services is structured to serve the public in the field of occupational health through the Department of Health and Social Development. Your Commission sees the need for a body structured to serve the worker and the work site in the field of BOTH occupational health and occupational safety.

We recommend that the professional and technical services of the Division of Industrial Health Services and the Accident Prevention Department of the Workers' Compensation Board be brought together in one department.

Our goal in making this recommendation is to create an available credible consulting service capable of fulfilling an educational role and conducting an inspection service aimed at "the promotion and maintenance of physical, mental and social well being of workers in all occupations; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological equipment". In short our goal should be the adaption of work to man and of each man to his job and that the work site and work practices are not health hazards.

We have explored a number of ways by which this merger and this goal might be effected. We have discussed these in some detail in the previous Section on the "Organizational Framework" (Part III, Section 1).

Despite this merger further modifications are necessary if this goal is to be reached. Linkages must be developed between the health services branch of our model and other services delivering health care, to facilitate the monitoring or surveillance of the health

of workers along with the health hazards of the work site. Ideally, we would like to know the health risks generated by certain occupations and the precautions that are necessary to avoid them. To effect such surveillance, it has been suggested that every person seeking health care services should be identified by his occupation. The incorporation of such identification into the present computer facilities does not seem readily attainable, however, alternate methods of monitoring the worker are necessary.

We recommend that the Division of Occupational Health maintain a register of the names of workers who are at a known or suspected health risk by virtue of their work. The Division should develop guidelines by which it might be notified of names to be placed on the register and in doing so, it should take into consideration notification from multiple sources such as various health personnel, safety committees, employers, inspectors, workers, etc. At regular intervals this list of names should be submitted to the Alberta Health Care Insurance Commission or Alberta Hospital Services Commission to discover the frequency and nature of health care which they have received. This would serve to alert the health officials that a work site health hazard may have developed. Once alerted a more detailed analysis of the situation can follow. This "alert" system, however, requires linkages with the Alberta Health Care Insurance Commission and Alberta Hospital Services Commission so that the data they generate may be examined. It might be felt that this type of linkage may threaten the confidentiality of medical records, however, we suggest that current legislation is sufficient

and maintains this confidence (Section 25, The Alberta Health Care Insurance Act).

We recommend that legislative linkages between the Department of Occupational Safety and Health and Alberta Health Care Insurance Commission and Alberta Hospital Services Commission be used to develop an "alert" system which would identify the frequency and nature of health services being rendered to workers. Such a system would further direct investigation by officials of the Department of Occupational Safety and Health if it should appear warranted.

Consultation services should be available to physicians and other health care personnel who may be caring for workers. The identification of known and suspected health hazards including information relating to the prevention, treatment and the surveillance of these hazards must be transmitted to them. Those physicians who provide occupational health care should be listed with the Division of Occupational Health with a view to maintaining a formal liaison with its record department and also with the health intelligence service of the Department of Occupational Safety and Health. Such listing need not be considered restrictive nor limiting. Quite the contrary, its main purpose is to serve as a mechanism whereby educational material can flow down to the practicing physician and statistical and other related information would be supplied to the Department of Occupational Safety and Health. The work frequently done by such physicians would include medical examinations and laboratory tests which are currently considered examinations for a "third party" and, therefore, do not qualify for Alberta Health Care Insurance Commission payments. Such listing would



qualify physicians for Alberta Health Care Insurance Commission payments in performing these examinations.

We recommend that the Department of Occupational Safety and Health provide a consulting service to physicians and other health care personnel who may be caring either directly or indirectly, for workers. The Department of Occupational Safety and Health should be able to inform concerned practitioners of persons who are on their registry.

We recommend that the Department of Occupational Safety and Health maintain a list of occupational health care personnel with a view of developing lines of communication with these "field practitioners".

We recommend that the fees for medical examinations and laboratory tests be paid for by the Alberta Health Care Insurance Commission when they are performed by such listed physicians or authorized health personnel.

Your Commission was impressed with the recognition demonstrated in highly industrialized countries of the need to provide occupational health service close to the work site.

In some of Europe's larger industrial conglomerates, the health facilities are located at the work site and are very generously equipped in terms of personnel and equipment. We visited the Bayer Chemical Works in Leverkusen, West Germany, which employs approximately 45,000 people and possesses a facility that would compare favourably with an average rural Alberta hospital. These services appear to fulfill some of the needs as we have perceived them. In addition to offering immediate first aid, the company also provides a system for monitoring health at

work, provide more complex health care for illness arising at the work site including some rehabilitation physiotherapy, and provides for monitoring of the work site itself. Collectively, the personnel of the health facility provide an "intelligence service" and an educational process throughout the plant directed towards workers' safety and health.

The present size of the work sites in Alberta does not lend itself to this approach. However, we do recognize certain work site needs which appear to have been met in parts of Europe but will require alternate solutions here. These needs are:

(1) Surveillance of both the worker and the work site with respect to health hazards.

(2) A treatment centre providing immediate first aid and therapy in case of sudden illness or accident.

(3) A method of immediate assessment of disability and impairment to health to achieve rapid rehabilitation and return to the work force without lost time.

(4) Provision for extended physiotherapy and other rehabilitation services which will allow the worker to continue working.

To a degree many of these work site needs are met by the Division of Industrial Health Services, the Workers' Compensation Board, private physicians and nurses practicing industrial medicine, the emergency departments of our hospitals and various private physiotherapy facilities as well as those of the Workers' Compensation Board and public hospitals. In our larger plants, these services may be provided to a limited degree by their respective health departments. We would encourage this approach wherever possible. The smaller

employer would dismiss this approach out of hand, yet his is the predominant work site. In recognition that the worker in the smaller work site requires access to occupational health care, the West German Government has decreed that every 2,000 ( $\pm$  500) workers shall be monitored by an occupational health physician, although they allow that insufficient numbers of trained physicians presently exist to fulfill this requirement. We were informed that in Red Deer an experimental attempt has been made to bring occupational health care into the community via the District Health Unit. This is a commendable move in our opinion. However, here too there is tacit acknowledgement that inadequate numbers of trained personnel are available for the job and we are not too sure of the priorities placed on industrial health services in relation to other health services.

Wherever we visited, we encountered this shortage of trained personnel. Some of the reasons for this may be the low level of awareness of occupational health care in all its forms, the varied training programs are still undergoing evolution and, therefore, have not been readily accepted, and the failure of the personnel involved to achieve recognition and satisfaction for the work they have done.

In Alberta, this shortage might be overcome by establishing appropriate training programs in our universities and colleges to produce Industrial Health Physicians, Industrial Health Nurses, Industrial Hygienists and Engineers with an interest in ergonomics. Such programs would set uniform standards of training and care, competence of service and raise the overall awareness of occupational health care. To maintain

these standards we would encourage the respective professional associations in their efforts to recognize the field of occupational health care and expand the role they are playing to keep their members competent and avoid obsolescence.

In some industrial complexes in Europe we were impressed that the predominant concern of occupational health care personnel is directed towards "job satisfaction", that is, the adaptation of work to man and of each man to his job. Examples of such efforts were reported to us by the Swedish Employers Confederation in describing the Scania Division factory in Sodertälje which is part of the Saab-Scania group - manufacturers of truck and automobile engines. Similar reports were received with respect to the Volvo motor car plant in Skoevde, Sweden and the Gillette Company in Annecy, France. These efforts were made in a highly co-operative spirit to everyone's apparent satisfaction. Clearly, in time we shall address ourselves to similar problems when qualified personnel become available.

Meanwhile, we are obliged to offer health care services with our available personnel to the worker who has no direct access to these services. Ideally, we would like to see the grouping together of physicians specializing in occupational health working with occupational health nurses and industrial hygienists. They would be in a position to offer fairly comprehensive services to a number of smaller work sites. In addition, we would like to see the family practitioner, or for that matter any other medical practitioners who express an interest in this field, to make their services available to the smaller work site. Preferably this should



be done in co-operation with industrial health nurses where available.

However, in all these instances where occupational health care is provided to the worker or the work site, we would like to see the personnel providing such care listed with the Department of Occupational Safety and Health. In our view such listing would serve a number of purposes. It would establish a formal line of communication between the Department of Occupational Safety and Health and the provider of occupational health care. The Department of Occupational Safety and Health would be able to collate all data related to services rendered to the worker for statistical purposes as well as for those of research and development. This would entail a method of reporting these services to the Department of Occupational Safety and Health in a manner similar to that currently used by the Workers' Compensation Board in receiving its reports on medical services for industrial accidents or diseases. The Department of Occupational Safety and Health in turn would be able to supply the provider of occupational health care with updated information relative to prevention and treatment programs with which he is involved.

This educational process would further serve to maintain high levels of awareness in matters of occupational health, to upgrade and maintain high standards of care and to expand the number of persons who could participate in delivery of health care.

The Department of Occupational Safety and Health could offer comparative data that would indicate how the service relates to that given elsewhere and indirectly, hopefully, generate some degree of job satisfaction.

With respect to the assessment of illness and disability

arising out of work, the Medical Services Branch of the Workers' Compensation Board provides this service credibly. The Rehabilitation Clinic is included in this Department. The Board also has a Vocational Rehabilitation Department which offers vocational counselling and assistance in finding new employment for injured workers.

We have expressed concern that the description of disability should be related to one's work as well as to society as a whole. We feel it desirable that this assessment should describe as fully as possible the nature of the resultant illness or disability, furthermore, this assessment should be made independently of the processes by which a compensation award is made. We have suggested that included in this assessment be a measure of impairment of body function, a measure of disability relative to the work done and a measure of disability in absolute terms.

Examples are offered.

(1) An electrical-appliance repairman accidentally sustains extensive electrical burns to his right hand resulting in the loss of all his fingers. In addition he has electrical injuries to the right arm and forearm weakening its strength and subjecting him to unpleasant sensitivity when exposed to heat and cold. This impairment of body function might be measured at 90% below normal for a right arm. In terms of his work - he can no longer perform his duties and is 100% disabled. In absolute terms relative to an average healthy person with full use of the right arm, he appears as one who has lost its use and would be considered 45% disabled.

(2) A coal miner develops asthmatic bronchitis when underground, but above ground he is well and able to perform all activities

without complaints. In time his sensitivity to underground dust becomes so marked that he must leave the work site. When examined he reveals X-ray evidence of pneumoconiosis and pulmonary function tests which indicate impairment of some lung function, measured at 15% below that of a normal lung. In terms of his work site, he is unable to return underground and is 100% disabled. However, in absolute terms when above ground, he is barely disabled at all - at most registering a 5% disability when compared to the average man above ground.

We feel there is a need to document disability in this manner in order to clarify the economic potential of the disability and to make the worker aware of this disability. The miner who is 100% disabled from a \$12,000 a year job is in a different financial position from the same man who is "returned to lighter work" above ground at \$8,000 and is only 5% disabled. While we do not feel it is within our terms of reference to look into compensation awards, we feel that those who make such awards should be as aware of this picture as is the person who is so described.

In our opinion, the credibility of the rehabilitative process is challenged when the description of disability or function impairment fails to differentiate in this manner. An electrically burned arm may not be capable of restoration beyond its 85% impairment; in the eyes of the person involved an assessment of 45% disability does not seem just.

Rehabilitation means different things to different people. To the worker it may mean a complete restoration of physical health and social well being. Clearly this is not always possible. With

incomplete restoration of physical health, mental health scars develop which in turn may forever prevent any social well being. When impairment or disability develops, alternate work must be found. To the worker this is seen to mean either or both of two things: a loss of earning power or a loss of job. Because he fears these possibilities he may refrain from having his health monitored or accepting rehabilitation.

We feel that rehabilitation must be seen to mean an honest attempt to restore the worker towards his previous relative earning capacity. Loss of credibility results otherwise. We have witnessed asbestos workers who have refused to have their health monitored by pulmonary function tests and chest X-rays lest the findings should indicate that a change in job is necessary with resultant loss of earning power.

Against this general background of occupational health service, we would like to comment on the Division of Occupational Health (D.O.H.) and its relationship to the other divisions within the new Department of Occupational Safety and Health as well as with other governmental bodies.

At first glance it is evident that the present Division of Industrial Health Services will form the nucleus around which we would build the Division of Occupational Health. It would continue to perform its services with an integrated team of Industrial Hygienists, Laboratory Chemists and Technicians, Field Technicians, Radiation Health Officers, Occupational Health Nurse Consultants and Industrial Physicians. In addition it must be able



to offer a surveillance of workers and work sites, maintain liaison with health care practitioners and offer readily available consultation services.

In a general sense the function of the division would not be connected with "health" in the treatment sense of the word. It would be predominantly concerned with the identification, measurement, protection against and long term prevention of effects hazardous to the biological and physical integrity of man at work. In a sense its function may be considered "identification" and "anticipation and prevention". It relates to events occurring prior to damage rather than to a remedial activity after an incident or accident has produced the need for some form of treatment, compensation or rehabilitation.

There are two matters of particular importance with which we suggest the Division of Occupational Health should be concerned. These are the regulation of hours of work and the establishment of standards for new products and equipment.

The Board of Industrial Relations at present regulates hours of work. Your Commission is of the view that the Division of Occupational Health should have to give prior approval to the Board of Industrial Relations before any order to change hours may be issued. Hours of work are directly related to the well being of a worker. Threshold Limit Values are based on an eight hour day and little meaningful data is available for any variation to this time period.

We also recommend that any manufacturer who places new products or equipment on the market should file a chemical or

technical description of these with the new Department. Before chemical substances are used information must be made available as to how the chemical should be used safely. The product should only be used if the Department approves the product for use and certifies the information filed is correct. It is expected that the new Department will have a strong input with the various regulatory authorities as to equipment and machine design. If equipment or machines are placed on the market that in its view are hazardous then the Department must have the authority to require the manufacturer to alert all his customers to this effect.

In addition to these technical capacities we see the delivery of occupational health care being co-ordinated through this division. Its ability to do this without becoming autocratic, dictatorial or irrelevant to the actual providers of such care will be an ever present challenge. However, it is one that must be met. An effective liaison with the providers of occupational health care is mandatory as is a liaison with the providers of public and general health care.

It has been suggested that effective health care services can only be provided by the integration of all such services in order to ensure effective liaison. Recent studies on health care delivery by Dr. J. Hastings in a federal study on "Community Health Care Centres in Canada" and Dr. R. Foulkes in his report on "Health Security for British Columbians" present compelling arguments for the integration of health services to meet the total needs of the community. Indeed the merger of the Department of Health with that

of Social Development is a manifestation of this at the policy making levels while the recent developments in the Public Health Unit in Red Deer is an example of an attempt to provide such service in the field.

In terms of cost effectiveness, the modern public health service has an enviable record in the improvement of public health. The introduction of safe water and food supplies coupled with proper garbage disposal has changed the course of history as has the use of quarantine techniques that developed from monitoring communicable diseases. The extension of these public health traditions and techniques into industry seems a natural thing to do.

Many similarities are apparent. The identification, isolation and treatment of the typhoid carrier in a pastry shop is analogous to the identification, isolation and treatment of deafening noise emitting from a wood chopper in a paper plant. The monitoring of patients with tuberculosis, cancer and venereal disease is similarly analogous to the monitoring of workers with asbestosis, silicosis or lead poisoning.

A very strong argument can be made that occupational health services should be an extension of public health services and that these services should be established and co-ordinated in the Department of Health and Social Development. We disagree!

Within the very wide spectrum of health care covered by the Department of Health and Social Development, occupational health care comprises a very small component. In terms of priorities, we feel that occupational health services rate lowly. This observation not only applies to Alberta but has been matched

elsewhere in Canada and Europe. This is not in keeping with the emphasis we should like to see placed on the subject. Indeed, it is our opinion that a comprehensive, well co-ordinated program of total occupational safety and health cannot be offered to the worker and work site so long as occupational health services continue to occupy a position of relative unimportance in the Department of Health and Social Development.

In our discussions on the needs and responsibilities of the worker, employer, government and public with respect to occupational safety and health, we concluded that the services of Inspection, Education, Research and Development, Occupational Health, Insurance, Compensation and Rehabilitation should be closely integrated although the latter three functions would remain within the Workers' Compensation Board. We feel that this integration can best be effected within one ministry. We have chosen to assemble these functions together so that collectively they will project the image and perform the role we envisage.

The creation of a Division of Occupational Health and placing it within a Department of Occupational Safety and Health has many advantages. It would bring together in one Department persons with a common interest, namely the safety and health of the labour force. The co-ordination of their activities would be easier. The Division of Occupational Health would have access to the inspection services that it so desperately needs but does not have at the present time. The inspection services in turn would be backed up by the technological activities of the Division of Occupational Health. In a similar manner the Division of Occupational Health would have access



to educational services in order to effect changes in the level of awareness of all occupational health care personnel, to establish standards of treatment and to offer "in-house" training of field inspectors. An effective liaison with the Workers' Compensation Board would alert the Division of Occupational Health to previously unrecognized health problems as they present themselves. The role of surveillance can be planned in a more meaningful manner through its relationship with the Division of Research and Development. These are but a few of such advantages.

At some future date, it may well prove to be expedient and efficient to integrate occupational with general health care services. In our opinion this is not that time. Because occupational health care as such is relatively new and has not become well established in our society, we feel that particular attention should be given to its cultivation, growth and consequent establishment. We feel that this is best done in an atmosphere where it can operate with allied personnel serving the same purpose.

PART III: ANALYSIS AND RECOMMENDATIONS

Section 5: Occupational Safety and Health -  
Research and Development

As a cause of death, accidents are reportedly outranked only by cancer and heart disease. Despite what we feel are strong similarities between accidents and disease in terms of causation and prevention, sharp differences exist between the two in terms of research efforts and public attitudes and understanding.

In the many jurisdictions we visited both in North America and Europe, we observed wide variations with respect to the extent of research into the various aspects of occupational safety and health. We were impressed with the emphasis being given to studies on behaviour and stress resulting from the relationship between the worker and his work. These have included effects on productivity, methods of assembly line production, and the social consequences of adaptation to work to mention but a few. Officials at the World Health Organization and at the International Labour Organization reported that this type of research is at the forefront in the more sophisticated and complex industrial societies. We were advised of the work done in the field of ergonomics and of the excellent studies on drill press design and work procedures which resulted in some of the lowest drill press accident rates in the world. Also, we were exposed to the frustrating field of "statistics" and were aghast to note that one country could not compare its accident or illness rates with another's! Worse still

we discovered that one country, renowned for its research, could not compare one generation of their statistics with another, presumably due to the continuing change in definitions used for statistical purposes.

We received with mixed reactions the revelation that variations exist with respect to establishing Threshold Limit Values (TLV's) on the same noxious substances in different parts of the world and we were advised on the complicated methods and procedures used to establish "consensus standards". In one jurisdiction we learned retrospective studies had revealed that at least 50% of the workers in a certain occupation were unable to continue with their jobs by age 55 for health reasons and that prospective studies were planned to discover why this had happened.

This exposure certainly gave us some insight into the vast scope of the field and some awareness of the work that still needs to be done. It brought us to the unanimous conclusion that no comprehensive program of occupational safety and health would be complete without the inclusion of a "research and development" capacity which could relate to the needs of the overall program.

In Alberta at present research along these lines appears to be limited by facilities, trained personnel, motivation and money. However, we seem to differ little from the rest of Canada in this respect. The varied and apparently unrelated research into occupational safety and health has been done in large part by universities, by governments and by private national and international agencies.

In exploring the role to be played by a Division of Research and Development in a new Department, we were apprehensive lest its activities should become divorced from those performed in the other divisions of Education, Inspection and Occupational Health as well as those of the Workers' Compensation Board. In our opinion, the Division of Research and Development should serve the entire Department of Safety and Health and its divisions by providing a consultative and resource service that will assist in the planning and development of programs and in the achievement of goals and objectives. In this way, it will ensure the provision of an optimum level of co-ordinated services to Albertans. Without limiting the general objectives, we foresee the following specific responsibilities for the Research and Development Division.

(1) The collection, analysis, storage and retrieval of valid data on the basis of which the Department of Occupational Safety and Health may play a leading role in the development and provision of overall occupational safety and health services in Alberta.

(2) To act as a support service, co-ordinating agency and catalyst in the development of an increasingly effective research and development potential amongst those practicing occupational safety and health in the province and/or elsewhere.

(3) To stimulate research and demonstration projects by providing advice to interested occupational safety and health practitioners and by assisting them financially in a direct manner or in the preparation of protocols and submissions for research grants.

(4) To co-ordinate information on operational research and development projects in order to identify geographic areas and



individuals that have potential for future research projects; to encourage co-ordination and/or integration with similar projects being carried out in various parts of the country either by other jurisdictions or by the private sector.

(5) To provide the Department of Occupational Safety and Health, its other divisions and the committee structure as well as the Workers' Compensation Board with advice and guidance regarding scientific approaches to the achievement of their aims and objectives.

A functioning Division of Research and Development should be relevant to the work of the Department and in recognition of its potential as a central resource to the other Divisions we would recommend the creation of a "Steering Committee" to generally guide and direct the policies, priorities and activities of this division. This committee should be chaired by the Deputy Minister and consist of the heads of the divisions of occupational health services, education, inspection and research and development, as well as a representative from the Workers' Compensation Board. In general terms it should make recommendations concerning Division policies, staffing, financial support and priorities on the basis of an overall evaluation of departmental priorities and effectiveness.

Special mention should be made of statistics. The Commission engaged a Consultant to do an inventory of the existing statistical and data base available within the Alberta Government Service, (Appendix F). Her report indicated that there were important areas in which little or no information is currently available and that in some cases the

accuracy of existing data is suspect. She also reported that very little broad scale analysis of existing occupational safety and health data has been attempted nor has much effort been directed towards making the facts about accidents and occupational disease available to either professionals who have an interest in the subject or to the public at large. The Research and Development Division should take a leadership role in correcting these deficiencies. Therefore, we would recommend that the Division should contain a small but professional statistics unit. We would also recommend that a particular priority item for this unit should be the development of a uniform accident reporting system that would be meaningful and acceptable to all those government departments concerned as well as to industry. This system should incorporate the Z-16-2 Code adopted by Statistics Canada and be compatible with reporting systems in other provinces in Canada.

We understand that the Alberta Bureau of Statistics would be prepared, upon request, to assist at any stage in the development of a statistical reporting dissemination and analysis system. It may be that the Bureau would be the central point through which the necessary safety and health data could be collected and handled so that it would be co-ordinated with related social and economic data. In this way, its confidentiality could be assured and it could be made available to the various Departments concerned with a minimum of effort. Your Commission recommends that the newly formed Research and Development Division work closely with the Alberta Bureau of Statistics and other user Departments in developing a meaningful data and statistics base relative to occupational safety and health.

Another particular aspect which deserves special mention refers to the access to information from the records of the Workers' Compensation Board, Alberta Health Care Insurance Commission and Alberta Hospital Services Commission and involves the confidentiality of these records. Legislated access to these records should be made available without jeopardizing their confidentiality.

In our description of the Division of Research and Development we have suggested the creation of an "intelligence service" on all matters relating to the functions of the Department of Occupational Safety and Health. In this respect, we recommend the Department must also possess the services of an extensive professional and technical library that is able to consolidate and evaluate all information available on the local, provincial, national and international scene. This information in turn should be adapted and made available in a usable form to those who want or need it.

The Research and Development Division should also have a small laboratory facility where certain forms of applied research can be carried out. It should have a field staff to carry out related testing and monitoring exercises on the work site in this connection and thus act as a service to the other Divisions of the Department.

Of the various functions to be performed by the Department of Occupational Safety and Health, it is our opinion that the one most likely to suffer from inadequate or irregular financing is that of research and development. The complex interrelationship that exists between time, equipment and trained personnel which make up

an effective research unit is readily disturbed by a situation of inadequate finances. Insufficient time allotted for a project, insufficient equipment necessary for investigative purposes or inadequate salaries for trained personnel can ruin the morale of the service and thereby decrease its effectiveness. We recommend that particular consideration be given to the financing of this Division to ensure its continuity and effectiveness. One method of doing this could be through the Workers' Compensation Board by an assessment of industry. Our impression on this matter obtained during our public hearings would suggest that such a method of financing would be highly acceptable and we would recommend that this be done. We have previously outlined our general recommendations regarding overall financing for all new departmental programs in the Section entitled "Organizational Framework". We would emphasize here that our view is that the research and development function is the one that is particularly susceptible to financial constraints and sufficient long term funding to ensure its operation should be assured.



### PART III: ANALYSIS AND RECOMMENDATIONS

#### Section 6: The Inspectorate

From the beginning of our deliberations, we recognized the need to clarify our understanding of the role of the many occupational safety and health inspectors in the province. Each of us has had some type of contact with one or another of these inspectors and it is probably correct that at our first meeting we brought with us seven different perceptions of their duties and responsibilities. We were aware of many conceptions and some misconceptions of their role. Our first task, therefore, was one of self education.

In this regard we were privileged to consult with all the chief inspectors of the Department of Manpower and Labour, the Accident Prevention Department of the Workers' Compensation Board and the Energy Resources Conservation Board as well as with some field inspectors at the work site and in their offices. We were impressed with their dedication to their duties and commend their co-operation with our enquiry. Our subsequent comments and recommendations are aimed at improving the present service provided to industry as we previously outlined in the "Introduction" of this Report and in no way reflect adversely on this group.

Our interest in this subject extended outside the province and we appreciated the opportunity to visit and consult with jurisdictions in Canada, the United States, the United Kingdom and other European countries. These visits assisted us in our discussions relative to formulating our concept of an appropriate inspectorate.

One of our Consultants' Reports (Appendix F) made a number of suggestions concerning inspectors.

In the Section on the "Existing Structure" (Part II, Section 2), we made reference to the various provincial, federal, and municipal departments, boards and agencies which presently have a major involvement with occupational safety and health programs and policies. Initially, some of us were overwhelmed by the great number of organizations involved in this field. We were also confused in our understanding of their respective jurisdictions. It was with considerable relief that we were able to detect somewhat similar confusion existed with some of the inspectors that we interviewed. These various organizations would seem to have been created over the years to function in response to specific needs as they were identified. As these needs changed, so did the function but the body itself was retained. Perhaps the best example of this is the Theatres Branch of the Department of Manpower and Labour. As a result a bureaucratic labyrinth has evolved which is difficult for the average citizen to comprehend. It really is questionable if our citizens are effectively served by these various protection agencies when they cannot totally understand their structure and purpose.

In our studies we attempted to discern some common pattern in these organizations for possible application to our proposed model for occupational safety and health programing.

All were originally created to PROTECT somebody or something, that is, the public, the environment, the worker or the work site. To do this, they all had in common six readily identifiable functions

which needless to say were performed with varying degrees of effectiveness. These were:

(1) They established REGULATIONS with respect to their particular area of concern.

(2) They conducted INSPECTIONS to ensure compliance with their regulations.

(3) They possessed mechanisms for ENFORCEMENT of their regulations.

(4) They possessed mechanisms for the imposition of a PENALTY for failure to comply when enforcement failed.

(5) Either intentionally or otherwise, they did EDUCATE with regard to their regulations and activities.

(6) They had to RECORD these activities.

We found ourselves concentrating on those functions that dealt with inspection, enforcement, penalties and education and in doing so compared and contrasted one body with another. In addition, we extended this comparison outside the province into jurisdictions in other provinces and countries. We became aware of varied philosophical approaches to this matter. On the one hand, some protective agencies use the inspector as a "policeman" whose prime function would appear to be the enforcement of regulations by the arbitrary imposition of penalties. He seems limited in his educational duties by the constraints imposed on him by his agency to the apparent frustration of all concerned. On the other hand, our own Workers' Compensation Board appears to have downgraded the image of "policeman", preferring to project the image of an educator whose main task is to change attitudes prevailing at the work site. We were

distressed to hear that this approach was not always perceived in this manner by the work force which frequently viewed the inspector as an agent of the employer.

In matters of health, the Department of Health and Social Development has far reaching authority in this respect under the Public Health Act but we were quite disappointed by its inability to impose meaningful penalties in the event of non-compliance with regulations. Effective enforcement would seem to be compromised.

We were most impressed with the philosophical approach to the inspectorate in the United Kingdom where the training of the inspector appears to prepare him for any possibility and all functions including a direct confrontation with the Board of Directors of a company. He might also have to prepare and prosecute his own case against this same Board in a court of law.

Within our own province a very wide spectrum of inspection services relating to various aspects of occupational safety and health is evident. We had to agree on which portion of this spectrum to include in our deliberations and we had to arrive at a recommended philosophical approach with respect to inspectors which would be compatible with the scene in Alberta.

Our reaction was to group together all inspection services that had a significant occupational safety and health component to them. In such a move we would have merged the inspection services of the Accident Prevention Department of the Workers' Compensation Board, the Inspection Services Department of the Department of Manpower and Labour, the Division of Industrial Health Services of the Department of Health and Social Development and a part of the Coal



Division of the Energy Resources Conservation Board. We recognized that such a merger would bring together persons with varying degrees of training and expertise, with different interests and priorities and perhaps with questionable effectiveness.

Objections to such a merger would have to be anticipated. We would expect some of these to originate from the mine inspectors who have always maintained a degree of independence from other inspectors involved with occupational safety and health. This situation would seem to have evolved throughout the industrialized world in a similar manner. In all the jurisdictions which we visited, with the exception of the Province of Saskatchewan, mines inspections were carried out apart from safety and health inspections. Perhaps this general pattern came about for historical reasons. However, whenever we inquired as to the feasibility of merging mines with other inspectors, no one objected. The appeal of this idea seemed to be countered only by the traditions of the past and normal resistance to change.

Initially we experienced some difficulty in recommending placing these various inspections under one administration. The type and purpose of the technical inspections performed by the Inspection Services Division and by the Division of Industrial Health Services, seem quite removed from the accident prevention inspections carried out by the Workers' Compensation Board and the Coal Division safety inspections. Some of these services are obviously directed towards correcting unsafe work practices and places while others appear directed towards the protection of the general public.

In our Section on "Occupational Health Services", we have indicated our awareness of a current trend to bring together in one

administration both public and occupational health services and generally to integrate all health care services. While we might acknowledge some of the validity for moving in this direction, we recommended that for the present occupational health services should be kept apart from other health services and within another administration. One reason for doing so was to encourage and promote the growth and development of these services in an atmosphere of similarly related functions where its priorities would remain high. We do not think these arguments apply to the separation of public from occupational safety.

Within one administration, we hope to bring together a comprehensive body of expertise to which employers, workers, safety associations, trade unions and other interested groups or individuals would be able to turn for advice. Under such an administration there could evolve a framework of operational objectives and priorities, a clear policy and centralized legislation spanning the whole field of safety and health at work. Such a merger would certainly enhance the "one window concept" we have espoused. The mix of personnel brought together would represent a wide variety of experience which could be diffused profitably throughout the Inspectorate. Inspectors involved with the approval of designs would be in a position to receive some input from field staff who would subsequently inspect the completed structures. Bringing these services together should eliminate their duplication involving various agencies and also eliminate the competition between government agencies for the provision of services and the recruitment of trained personnel. We note that coal mine inspections currently require the assistance of services from other inspectorates

and is not by itself a complete inspectorate.

We would aim towards a completely unified and integrated inspectorate. This concept of a unified inspection service had an appeal to Lord Robens. His recommendation in this respect was subsequently put into effect by the United Kingdom parliament. It was also highly endorsed by our Consultants. Such an Inspectorate should be able to offer a wide range of inspections to considerable depth if necessary. To do this effectively, the scope of their work should not be limited to the extent of the specialized training of any one type of inspector but rather their coverage should be expanded by employing inspectors with varied specializations and experience.

We unanimously recommend the formation of an Inspectorate or Division of Inspection Services. This Division should be based on the nucleus of personnel brought together by merging the following entities:

- (1) Inspection Services Division of the Department of Manpower and Labour.
- (2) Division of Industrial Health Services of the Department of Health and Social Development.
- (3) Accident Prevention Department of the Workers' Compensation Board.
- (4) Coal Mines Inspection staff from the Coal Division of the Energy Resources Conservation Board.

We agree with the philosophy of Lord Robens:

"that this new inspectorate should be geared to an explicit policy which has as its prime objective the prevention of accidents and ill-health and the promotion of progressively better standards at work through the provision of information and skilled advice to industry and commerce".

In addition, the Inspectorate should also pursue a policy of rigorous enforcement utilizing the sanctions of the law widely and to the full so that the provisions of advice and the enforcement of the sanctions where necessary should continue to be regarded as the two inseparable elements of inspection work.

Within the Inspectorate we visualize the establishment of special technical units geared to support various field operations. We anticipate the need to develop new approaches to field inspections which could be carried out by operational units large enough to contain a wide range of specializations and skills. These units should have the status and authority to deal on the spot with the problems they encounter and if they are unable to do so they should have access to appropriate back-up support within "DOSH".

Since we see these inspections as being functionally oriented, then we could accept increasing specialization within the personnel of the Inspectorate. While it may be ideal to train and employ all-purpose technical advisors, we do not think at the present time it would be practical to find or train such persons. Among the various inspectors, the development of higher levels of professional competence, in the broadest sense, should be a matter of in-service training and development rather than one of recruitment.

The educational role of the Inspectorate would manifest itself in a number of ways. In the field, each inspector should recognize that the service he performs is an educational one directed to the members of the work site. In our Section on the "Worker and the Work Site" (Part III, Section 2), we outlined our suggestions for



Joint Safety and Health Committees, and furthermore, we suggested that a position be kept open on these committees for the inspector or any other agent of the new Department. It is these agents who will convey to the work site the image, information, credibility and overall usefulness of the new Department of Occupational Safety and Health.

We have commented upon the likely necessity for the employers and the workers to obtain assistance and guidance from the Inspectorate during the formation and development of the Joint Committee structure at the work site. This advisory role should be performed bearing in mind the flexibility as to the form the Joint Committee might take depending on the various industries and types of employment involved. In fact, the day to day operational interface between the work site and government is likely to develop at the Joint Committee and Inspectorate level.

We expect an initial period when there could be a severe shortage of competent and trained inspectors. On the other hand we doubt if we could afford sufficient inspectors to cover the whole field with the frequent and extensive coverage some think necessary. With this in mind, we recommend that a process of self-inspection of the work site should be developed. We further recommend that a priority item of such an inspectorate should be the development of a program which would lead to such self-inspection. This should eliminate some of the routine basic and perhaps cursory inspections from the duties of the Inspectorate thereby allowing greater flexibility in tackling the more significant inspection.

We feel that the Inspectorate should respond to every request for an inspection brought to it by a Joint Committee, but

it should use its discretion in response to similar requests from individuals. It will readily be seen that the Inspectorate, through its inspectors, will find itself acting as judge, arbiter and counsellor to the members of this Committee.

Upon making application for a permit or license, an employer may at the present time make the rounds of various agencies such as the Workers' Compensation Board and the Inspection Services Division of the Department of Manpower and Labour in order to get clearance to start his project. By bringing all these services together, making the application becomes a much simpler procedure. With some modifications, the Inspectorate should be able to receive all such applications, review them and then be able to issue guidelines for future safe operations.

In conjunction with the Department's Division of Education, we envisage the Inspectorate would assist in the development of programs for the use of safety committees, middle and top management, unions and safety associations. In addition, the Inspectorate would also be able to participate in the development of courses given to tradesmen in their apprenticeship training and help establish appropriate curricula containing an emphasis on occupational safety and health.

Some mention should be made of the individual inspectors within the Inspectorate. Our analysis of the various duties currently performed by a field inspector reveals a wide variation of functions. We note that in addition to his technical abilities, he is required to perform in many other capacities as well. To some degree, he is required to consult, teach, persuade and promote. In addition, he must research, analyze and then report his findings carefully along with present recommendations. He must exercise discretion in the

application of the rules and be able to interpret them to the worker, employer, the union or to members of his own division. Furthermore, he must be able to issue enforcement and compliance or improvement notices, cease and desist orders and closures, and take part in injunctions, prosecutions and other court actions such as appearances before coroners. He frequently assists in revising, updating and extending regulations. To perform in these varied roles he must have acquired some training, but it appears that much of this has been the result of his own occupational experience and basic good intelligence supplemented by various in-house educational programs.

In our new Inspectorate, we foresee individual inspectors performing along very similar lines. We have placed a greater priority on the educational thrust of the inspector's duties. To be effective, he should be well educated; but to what level? One school of thought would have all these inspectors selected from among persons with a very broad educational background and subsequently undergo university training in order to qualify for the job. Another would be satisfied by selecting mature persons with practical experience obtained on the job. It is our suggestion that the competence of inspectors would be more the product of selection and in-service training and development than the result of training programs conducted outside the new Department. The exception to this could conceivably occur when the Department through its Education Division entered into agreements with institutes, colleges or universities to train personnel specifically for its purposes.

Bearing in mind the increasing responsibility of the Inspectorate and the fact that the duties of the individual inspectors will

continually become more complex and sophisticated, it becomes essential that proper consideration be given to their remuneration. Their income and incentives for advancement should be sufficient to compete with those available in the private sector and enable the recruitment and retention of capable personnel. It is our view that this has not always been possible in the past. We would recommend, therefore, that a priority item for the new Department should be to arrange for a complete and comprehensive review of the position classification structure for all inspection staff with a view to establishing an adequate and uniform career series for inspectors.

We foresee an increasing demand being placed upon inspectors for advice and consultations. To meet this demand there should also be some incentives for upgrading an individual inspector's qualifications and experience.

It has been said that the "law cannot legislate relationships between people but it can set the tone and direction to which people will respond". A successful inspector should be able to develop this all important relationship between people and in doing so make himself a welcome visitor to the work site. To be effective at this location, he requires self-confidence and credibility in his approach to management. He should also work towards gaining the trust and confidence of the employees on his inspection tour. In this way he can keep them informed of his assessment of conditions at the site.

In many ways the success of our entire program of occupational safety and health is dependent upon the inspector and the manner in which he conducts his inspection. He must be able to bring with him all the



information which he can receive from the "intelligence service" of the Department and he must be seen to apply it judiciously. When he is unable to resolve a problem he should make it clear to everyone that he has access to persons or information from "DOSH" that can. In any case his inspection should be regarded as meaningful by all those involved.

We have stated that the main thrust of the Inspector should be in an advisory role to the employer, employee and others without weakening the full range of legal enforcement powers allowed by the legislation under which he operates. This seems to be the tendency in Alberta now. However, we have noted in several of the submissions to us that in cases of persistent and blatant neglect of the regulations, the enforcement has been weak. Unless the inspector can and does rigorously enforce compliance with the regulations both he and the entire program can lose its credibility. In short, we may want him to become a "teacher", but he must not forget that he is also a "policeman"!

We are concerned that the work of the inspectors may not now be planned to yield the best productivity. We fear that routine visits tend to become superficial and usually unproductive, and that too many inspections currently performed are of this type. We believe that inspection programs should be oriented towards problems rather than based on periodic visits of a general nature. All the resources of the Inspectorate and the Department should be available and these inspections performed selectively. There should be an ability to identify problems and priorities through the systematic assessment of all the available data collated by the Department.

We recommend that a priority be placed on the development of an effective systematic appraisal of such data in order to plan the work of the Inspector. The present system of inspections currently performed by the Workers' Compensation Board unfortunately is perceived by many to be geared towards developing accurate assessment data for the Board rather than to provide the basis for an accident prevention service.

We spent considerable time exploring powers which an inspector should possess in the course of his duties and reviewed the "shut down" capabilities of the various inspectorates in the Government of Alberta. There was marked variation in this regard and we feel that some form of uniformity is desirable. We recommend that "DOSH" review these "shut down" capacities with a view to obtaining meaningful and effective uniformity in these regulations.

In the case of an unsafe work site or work practice, we would hope that initial remedial action would be undertaken by the Joint Committee. Failing such action, we would expect the Inspectorate to advise and consult on the appropriate remedial action necessary to correct the situation. However, in those unique situations where the Joint Safety and Health Committee has failed to effect remedial action, and in addition, where the advice of the Inspectorate has been ignored, then we foresee the need for a special type of "shut down" during which the employees should continue to be paid by the employer until they would normally become eligible for Unemployment Insurance benefits. In our opinion, a worker who finds himself in these particular circumstances is not too different from one who is forced off the payroll for illness or accident. In the latter case, the damage has occurred, in the former case, its subsequent occurrence has been prevented.

We were made aware of the methods presently used to obtain compliance from an employer with respect to occupational safety and health regulations. With respect to individual workers we were aware that a system existed where charges could be laid for flagrant violations of the regulations, and were informed that this was little used. In actual practice, should a worker be found to perform in an unsafe manner, his employer has available to him the usual disciplinary procedures but could do one of three things; ignore the situation, dismiss the worker or suspend him for a period of time. We were not fully agreed, however, on the methods that should be employed in obtaining compliance from individual workers. We pondered the possibility of enhancing the inspector's authority by enabling him to impose a summary fine for such violations. On reflection we felt this was wrong. We feared that should such a worker be dismissed or move on to some other work site, he would continue in his errant ways. We felt this could be corrected and done in keeping with our educational thrust. We concluded that in lieu of punitive penalties, such a worker should be directed to attend evening courses on safety and health without remuneration.

We are aware of remedial driving courses that are available for drivers who try to protect their driver's license and we are aware of techniques presently employed by the courts to direct driving offenders to such courses. In the long run this struck us as a more constructive approach and we felt it should be employed in occupational safety and health. The more we explored this idea the greater was its appeal. We would not limit such action to an errant worker but see it applying

to everyone at the work site including management. It is our view that management should not be able to hide behind their "corporate veil" if members of the Inspectorate can demonstrate that the former are responsible for the existence of unsafe situations. To ensure that such courses are effective, a means should be developed to show that the individual has benefitted from this type of education. This demonstration could take any form deemed appropriate by the Department and include examinations or the monitoring of particular tasks. We recommend that the Inspectorate, in consultation with the Division of Education, establish remedial courses in occupational safety and health to which both workers and supervisory personnel may be directed when they have been found guilty of unsafe work practices. Furthermore, we recommend that a method be developed whereby "DOSH" can demonstrate that the individual has benefitted thereby.

We are aware of the present powers of the Workers' Compensation Board to compel both witnesses and the provision of information in the course of its accident investigations and we feel that these powers should also be granted to the new Department.

Finally, any new act dealing with violations of occupational safety and health laws by the employer must have provisions for adequate and meaningful penalties which can be imposed promptly but which the employer has the right to appeal in the courts. It has been suggested to us that monetary penalties at their present levels may be considered as merely "another expense of doing business". We feel that consideration be given to stiffer penalties in cases of flagrant violations of the law.



In summary, we visualize an Inspectorate or Division of Inspection Services based on the nucleus of personnel brought together by the merging of four government agencies. The resultant Inspectorate should be seen to adopt a policy of education at the work site in addition to that of enforcement.

The inspection services should be planned in relation to the needs of the work site and all the resources of the Department would be used to make them meaningful.

We envisage a wide variety of inspectors each directing his ability to those problems at which he has become proficient. We visualize a continuing "in-house" training program for inspectors to upgrade and update their levels of competence in order to permit a career progression and a wider use of their abilities. We see inspections being performed by teams where and when appropriate. In the person of the inspector we see someone who will project and be perceived as the embodiment of the philosophy of the Department of Occupational Safety and Health. The credibility and usefulness of the service will depend upon him. Finally, we see the need for effective methods of enforcement backed by meaningful penalties to ensure compliance with the regulations when necessary.

PART III: ANALYSIS AND RECOMMENDATIONS

Section 7: The Role of Management and Unions

We have previously commented in general terms on the needs and responsibilities of management and the unions in Part II, Section 2, of our Report (Needs and Responsibilities). We have also referred to the manner in which we would suggest both parties would become involved in the work of the new Department and its various Divisions. We feel it would be useful at this juncture, however, to summarize and review in general terms what we feel should be the respective future roles of management and the unions in the broader field of occupational safety and health in Alberta.

It is generally agreed up to the present time, management has exercised exclusive and direct control over the safety and health function at the work site. The worker and the unions could make suggestions for improvements in this context but management reserved the right to make the final decisions.

We have viewed occupational safety and health concerns to be the joint responsibility of labour, management and government and have attempted to eliminate the "adversary" method of handling these concerns through the development of tripartite involvement whenever and wherever possible. Hopefully our Report emphasizes this approach.

We feel there are real limits to which improved occupational safety and health conditions can be brought about through the regulatory efforts of government. If the system is to be effective it has to be

largely self-regulating. This can only be achieved by all levels of management as well as the workers accepting their respective responsibilities and working together to achieve what should be a common objective.

We feel it should be the responsibility of senior management to set a positive policy and attitude towards safety and health in the organization. This is most crucial to the success of any safety and health program.

There are a variety of employers in Alberta, both in size of their operations as well as their approach. In the Section of our Report dealing with "The Worker and the Work Site" we list some of the basic services we suggest every employer should provide. A number of these employers, particularly some of the ones with extensive operations, have well organized and administered safety and health programs. Some employ industrial health physicians and nurses as well as safety specialists and advisers. But it is the basic and underlying philosophy and attitude of an employer that is crucial in making any safety and health program really effective.

It is the Commission's view that it is the employer's responsibility to establish and maintain a safe and healthy working environment at the work site. The first step he should take is to set forth clearly defined safety objectives as a policy statement. This should be accompanied by a clear allocation of responsibilities to those in the management structure including the assignment of the ultimate responsibility for safety and health to one individual at a very senior managerial level.

An employer should first plan his place of business or work site so that safe and healthy working conditions can be established. It is true that inspectors of government agencies do their best to ensure the proper design and facilities are provided, but the employer has an excellent knowledge of his own business and should therefore be most qualified to incorporate proper safety and health features from the outset, indeed, from when the plant is first on the drawing board.

Once the employer is satisfied that the work site has a safe physical environment and has well designed machines, processes and tools that can be operated without hazard, he has the responsibility to point these features out to all his employees and to provide them with adequate training and education to enable them to work safely. The employer should recognize that a desirable level of safety awareness cannot be arbitrarily imposed on the work force. He should also ensure that the appropriate advisory staff is provided. It takes the co-operation of all interested parties and safety and health is not an exclusive management right. Management should also take the lead in developing safe working practices and procedures.

Meaningful records should be kept. This should include statistics relating to morbidity and mortality. The collection and analysis of safety and health data at the work site are useful tools in determining sources of potential danger or hazard and preventing unsafe situations. The employer should therefore co-operate fully with the new Department in gathering information. We recommend that the President of each company should include in his annual report to the shareholders a comprehensive safety statement including statistics relating to industrial accidents and diseases suffered by employees of



the company as well as indicating corrective measures taken in this regard.

The employer should advise the new Department along with his safety and health committee and employees as to new materials and substances to be used as well as agree to governmental supervision in this regard. An employer should make certain that all products are properly labelled and where applicable include directions of how to handle dangerous substances.

The employer should appoint qualified and trained senior management personnel to the Joint Safety and Health Committee. Management personnel should be thoroughly convinced that safety and health programs have a very high priority and this can only come from the directives of the most senior level of management. Management should also encourage meaningful self-inspection by their work force. To do so the work force must have the necessary information and educational facilities available.

We feel that the monotony of many jobs may produce apathy and boredom which could result in accidents. Employers should co-operate with governments and workers and their organizations on such matters as ensuring work satisfaction and improving motivation at all levels of employment.

We feel that the unions also have an important role to play in ensuring that an effective safety and health program is available to workers in Alberta. Approximately one third of the province's work force is organized into collective bargaining agencies or unions. Their prime function is to represent the wishes of their members

respecting employment and welfare. Three basic types of unions may be identified:

- (1) Directly chartered locals of international unions.
- (2) Directly chartered locals of national unions.
- (3) Independent employee organizations (not affiliated to international or national unions).

There are two major federations of unions in Alberta, the Alberta Federation of Labour and the Alberta and Northwest Territories Building Trades Council. The Alberta Federation of Labour is made up of affiliated locals of national or international unions while the Alberta and Northwest Territories Building Trades Council is made up exclusively of locals of international unions employed in the construction industry.

Historically, unions have advocated that the safety and health of all workers should be guaranteed in their employment to the best extent possible. When this guarantee is impossible to achieve, they have asked that complete medical services, income protection and rehabilitation should be offered to affected workers when work related accidents or illnesses occur. These services are now being provided by the Workers' Compensation Board but in doing so greater emphasis appears to be placed on the treatment of workers after the accident or illness occurs rather than on its prevention.

Recognizing the need to emphasize prevention, many of the international and national unions have embarked on vigorous and extensive safety and health programs. A number employ full time safety directors, have safety departments and some have attempted to conduct

educational seminars for their local unions. In turn, some of the local unions have employed safety specialists also - although these are relatively few.

Your Commission believes the unions as well as management should have a prime role in the preparation of workers to operate in the "tripartite" framework. This would include the use of presently established training programs and educational seminars as well as the establishment of new ones. In doing so, we would like to see the resources of the new Department made available to these unions and would encourage the holding of tripartite workshops and seminars. The thrust of these programs should be directed towards such subjects as the prevention of illness and accidents, the role and function of safety committees and the Department of Occupational Safety and Health as well as encouraging and educating concerning "tripartite" discussions. In addition, we see the unions along with management applying their knowledge during the preparation of new regulations and in developing consensus for new health standards. The departmental "Task Force" Committees, specifically created to deal with these problems, provide a natural forum for unions to participate in a "tripartite" manner.

In the special circumstances involved in the construction industry, we see the craft unions through the Building Trades Council training its members to serve on Joint Committees in the many and varied forms that the latter might assume. Indeed, within this particular industry, it may well be the prime function of the unions to ensure that the members sent to the various work sites have first been adequately trained in occupational safety and health. The unions might also be

responsible for correcting any deficiency within the training of their membership. They should also exert their influence on curricula and training programs for apprentices through the Minister's Advisory Council or for specific adult vocational training courses through the Department of Advanced Education.

In the past, unions negotiated very comprehensive provisions into their collective agreements on matters of safety and health including the formation and operation of safety committees. When matters arose which were not covered by the collective agreement, the usual "adversary" approach to resolve the problem ensued. It is our view that the enactment of these conditions of "tripartite" discussions and activities would hopefully obviate most of these provisions. Furthermore, whenever matters arise that cannot be settled by management and labour at the work site, we recommend they immediately be subject to "tripartite" analysis and resolution.

Your Commission suggests there also has been in many quarters up until this time an unwritten rule that safety and health were solely a management function. We believe that safety and health is a joint responsibility of everyone at the work site. It is, as we point out, much too important to be left to any one group alone. We feel that a comprehensive and effective program of safety and health at work can only be developed by an accumulation of influences and pressures operating at many levels - that of the government, senior management, the supervisory staff, the worker at the work site and the trade union leadership.

#### PART IV: SUMMARY AND RECOMMENDATIONS

In this part of our Report, your Commission would like to put forth its conclusions and restate our major recommendations which are previously spelled out in Part III.

Your Commission believes that there must be an entirely new approach to occupational safety and health in Alberta. Emphasis must be placed on the involvement of both the worker and the employer in the maintenance of a safe and healthy environment at work. We suggest it is the joint and co-operative responsibility of the government, employers, workers and the trade unions to develop an awareness and sensitivity to occupational safety and health matters on the job. The entire program will fail without the support of any one of these parties.

Until very recent times, Alberta had only a minor need for occupational health services. However, with growing industrialization, especially in the petrochemical industry, the need for leadership and capability in this field has expanded greatly. This need will likely increase in the future. The requirement for effective accident prevention programs has also grown as industrial development particularly in the construction field has expanded.

We determined that there was a general lack of overall co-ordination between existing organizations in the occupational safety and health field and that questionable priorities existed in this respect. We recognize how difficult it is to make progress at the overall policy level where administrative responsibilities are heavily fragmented as they are at present in Alberta.



It was our recommendation that all legislation relating to occupational safety and health should become the responsibility of one central body. In order to unify and consolidate the various occupational safety and health programs presently performed by several different government departments and agencies, we propose that a new ministry be created with prime responsibility for the entire occupational safety and health field.

This new ministry of Occupational Safety and Health would contain The Workers' Compensation Board which would retain its present autonomy as well as a consolidated Department of Occupational Safety and Health. The Board would concentrate on claims adjudication, assessments and rehabilitation and would continue to report directly to the Legislature through the new minister. A new Department of Occupational Safety and Health (DOSH) would be created and headed by a Deputy Minister. The Department would be divided into five divisions; namely, Occupational Health, Research and Development, Education, Inspection, and Administration. The functions of each of the Divisions are described in Part III of our Report.

The formation of the new Department would necessitate the following major organizational changes:

- (1) The Division of Industrial Health Services of the Department of Health and Social Development would be incorporated to provide the nucleus of the new Occupational Health Division.

- (2) The Accident Prevention Department of the Workers' Compensation Board, the Inspection Services Division of the Department of Manpower and Labour and, the Mines Inspection staff of the Energy

Resources Conservation Board would all be transferred to form the basis of a new Inspection Division or Inspectorate.

We have placed considerable emphasis in the development of this new Department on ensuring the input of the private sector, the employer and employee, as well as the establishment of strong linkages with other government departments. We have suggested that the necessary input to policy development and programing from the ultimate "clients" of the new Department start from the Joint Committee which is designed to deal with matters of concern at the individual work site. The new Department should also draw on the expertise of "Task Forces" appointed from safety associations, labour unions, consumer and consultant groups and from the new Department itself for assistance and advice in dealing with technical and other matters of concern to specific industries.

For further private sector involvement on policy matters, we have recommended that a "Minister's Occupational Safety and Health Advisory Council" be established with its members appointed from the employer, worker and public sectors. This Advisory Council would provide advice to the Minister on matters of policy and operations brought to it from any source. The Council would have the ability to appoint "ad hoc" sub-committees to assist it in compiling expert information.

To assist the new Department in developing close working relationships with other departments who have coinciding responsibilities, we have recommended the creation of an interdepartmental "Operational Committee on Occupational Safety and Health" at the Division Chief level as well as a "Council of Deputy Ministers" to

deal with the review of policy matters in this same framework. The latter group would report to the Cabinet Committee on Social Planning.

It is our feeling that the overall budget of the new Department should be made up of contributions both from the general revenue fund as well as from the payments made by employers on assessment by the Workers' Compensation Board.

We have recommended that existing employer safety and health associations and labour organizations be encouraged to develop seminars and educational safety programs as well as participate in the setting of regulations and standards but that these groups be otherwise self-supporting and not assisted financially as is now possible.

Your Commission recommends that all legislation and services of the new Department apply to and be available to all workers including the self-employed.

Your Commission recognizes, however, the effectiveness of any safety and health program is realized at the work site. Programs, high sounding as they may be, are of no value unless they reach and involve worker and management. The work site is "where the action is".

Your Commission also firmly believes that the cornerstone of an effective occupational safety and health program must be a meaningful employer-employee relationship. To accomplish this, we feel there must be an organization at the work site that will permit the views of management and labour to be placed before each other in an acceptable and productive way. To meet this challenge, the Commission recommends that it be mandatory that a "Joint Safety and Health Committee" be

established at all work sites, unless the employer is specifically excused from having one by the Department of Occupational Safety and Health. We have suggested guidelines as to the structure and function of these committees.

Your Commission also recommends that there must be certain essential services and programs available at all work sites. They are:

(1) The maintenance of a 24 hour information service by the Department of Occupational Safety and Health.

(2) The development of a safety indoctrination program by employers particularly directed at new employees.

(3) The provision to employees of the necessary precautions and safe work methods to be used in the handling of materials and products manufactured at the work site.

(4) Provision should also be made for the regular inspection of all work sites.

(5) The Department of Occupational Safety and Health, employers and the workers organizations should be expected to actively pursue improvement in the quality of work life.

Your Commission gave particular consideration to the Joint Committee structure at construction sites. We have recommended that the prime contractor should be responsible for the implementation and regular operation of the Joint Committee and that each sub-contractor who is involved on site would be required to participate on the committee and in all safety and health programs at the work site. We have also emphasized that the sub-contractor must place a much greater priority on safety and health than he does at present. Your Commission, therefore, recommended that the prime contractor have

authority to correct any unsatisfactory operations or methods engaged in by the sub-contractor or his employees.

We are of the view that if the Government of Alberta is expecting support from management and labour in implementing a more effective occupational safety and health program then the government must take the lead to ensure that its own operations reflect this same priority. We have recommended that immediate steps be taken so that a comprehensive and co-ordinated safety and health program is implemented in the public service.

We have also recommended that the various departments, boards and agencies of the Alberta Government contribute financially on behalf of their employees to the operations of the Workers' Compensation Board on the same basis as does industry in place of the "cost plus" formula that it presently follows. We have also suggested that discussions be undertaken with the federal government to determine if this recommendation could also apply to those operations of the senior government in Alberta that now have coverage under the Workers' Compensation Act.

Your Commission believes that the government should take a much more active role in safety and health education. Such a program must be directed toward the worker, the work site, the employers and his associations as well as toward the unions and the general public. We suggest that more emphasis be placed on "home safety" education as we recognize that the process of safety and health education begins in the home and should be continued in our school system to a greater extent than it is at present. We recommend an increased emphasis on basic occupational safety and health training in the apprenticeship training curriculum.



We have recommended the establishment of a Division of Education within the new Department of Occupational Safety and Health. This unit will include the educational functions presently carried out by the Accident Prevention Department of the Workers' Compensation Board. We feel this Division should direct its efforts to the work site and to the public as well as to the other Divisions of the Department itself. The Division should show leadership in this field and encourage educational activities of other sources.

It is our opinion that the demand for trained personnel to work in the occupational safety and health fields will increase markedly in the future. To meet this need, we suggest that courses in these be established at one or more of the universities and/or colleges in Alberta.

We feel it will be the responsibility of the Department to co-ordinate all educational efforts in this respect and to support, guide and direct these towards the prime objective, the worker at the work site. We also recommend that the Department encourage the various professional organizations to establish standards of competence and to provide trained personnel in their special areas of concern.

Our recommendations with respect to a proposed comprehensive occupational health service were based again on our view of the needs of the worker.

During our initial discussions and continually thereafter, we were aware that two services essential to a comprehensive program of occupational health care were currently performed in separate agencies. We have recommended that the professional and technical services of the Division of Industrial Health Services and the Accident Prevention

Department of the Workers' Compensation Board be brought together in one Department.

The effective monitoring of a worker who may be placed at a particular health risk, we think, can best be effected through the use of a register and an alert system and we have recommended that the Division of Occupational Health maintain a register of the names of workers who are at known or suspected health risk by virtue of their work. In addition the Division should develop guidelines by which it might be notified of names to be placed on the register and in doing so, it should take into consideration notification from multiple sources such as various health personnel, safety committees, employers, inspectors and workers.

To make effective use of this register, we have recommended that legislative linkages between the Department of Occupational Safety and Health and Alberta Health Care Insurance Commission and Alberta Hospital Services Commission be used to develop an "alert" system which would identify the frequency and nature of health services being rendered to workers on the register. Such an "alert" would further direct investigation by the officials of the Department of Occupational Safety and Health if it should appear warranted.

To ensure that the highest level of competence and care is brought to the worker, we have also recommended that the new Department provide a consulting service to physicians and other health care personnel who may be caring for workers either directly or indirectly.

We have recommended that the Department of Occupational Safety and Health maintain a list of occupational health care personnel with a view to developing such lines of communication.

We recommend that the fees for medical examinations and laboratory tests be paid by the Alberta Health Care Insurance Commission when they are performed by such listed physicians or by authorized health personnel on "registered" workers.

To overcome the shortage of occupational health personnel which is local, national and worldwide, we have recommended the establishment of appropriate training programs in our universities, colleges and institutes to produce industrial health physicians, industrial health nurses, industrial hygienists and engineers with an interest in ergonomics.

We have also recommended that the respective professional associations recognize the importance of occupational health care and that they actively encourage their members who practice in this field to maintain their competence and avoid obsolescence.

In order to offer occupational health care to a number of smaller work sites, we suggest the grouping together of physicians specializing in occupational health and encourage their working in co-operation with occupational health nurses and industrial hygienists.

Our present system of assessing disability, awarding compensation and providing rehabilitation is not well understood by those whom it is intended to serve. To protect the credibility of our comprehensive program of occupational health care, we have recommended that the description of disability should be related to one's work as well as to society as a whole. Also we feel that this assessment should describe as fully as possible the nature of the resultant illness or disability, furthermore, this assessment should be made independently of the processes by which a compensation award is made. We have recommended that rehabilitation must be seen to mean an honest attempt to restore the worker towards his

previous earning capacity.

In our opinion, occupational health services should be closely integrated with the services of Inspection, Education, Research and Development, Insurance, Compensation and Rehabilitation, and we have recommended that these functions be brought together so that collectively they will project the image and perform the role we envisage. Indeed, it is our opinion that a comprehensive, well co-ordinated program of total occupational safety and health cannot be offered to the worker and the work site so long as occupational health services continue to occupy a position of relative unimportance in the Department of Health and Social Development.

In the many jurisdictions we visited in North America and Europe, we observed that research directed to occupational safety and health was fragmented and inadequately co-ordinated. We agreed that no comprehensive program of occupational safety and health would be complete without the inclusion of a "research and development" capacity which could relate to the needs of the overall program. We have recommended that the new Department contain this capability of a Research and Development Division.

The Division should be of considerable assistance to the department by providing a consultative and resource service that will assist in planning, development and evaluation of departmental programs.

We have also suggested a "Steering Committee" be established to guide and direct the policies, priorities and activities of this Division. The Workers' Compensation Board would be represented on this committee.



In the field of accident statistics, we found that there were important areas in which little or no information is currently available and in some instances the accuracy of the existing data is suspect. We have recommended that the new Research and Development Division contain a small but professional statistics unit. We have also recommended that a particular priority item for this unit should be the development of a uniform accident reporting system that would be meaningful and acceptable to all those government departments concerned as well as to industry.

We were of the opinion that the Alberta Bureau of Statistics could assist in the development of statistical reporting and analysis system in which safety and health data could be co-ordinated with related social and economic data. The Commission has recommended that the new Division work closely with the Alberta Bureau of Statistics and other user departments in developing a meaningful data and statistics base relative to occupational safety and health.

We felt that the creation of an "intelligence service" on all matters relating to the functions of the new Department was essential. To achieve this, we have recommended the Department must also possess the facilities of an extensive professional and technical library that is able to consolidate and evaluate all information available on the local, provincial, national and international scene. It should also keep abreast of new products and processes. This information should be adapted and made available in a useable form to those who want or need it.

We feel that the research and development area is the one most likely to suffer from inadequate or irregular financing. We have recommended, therefore, that particular consideration be given to the



financing of this Division to ensure its continuity and effectiveness. One method of doing this could be through the Workers' Compensation Board by assessment of industry. Our impression on this matter would suggest that such a method of financing would be highly acceptable and we would recommend that this be done. It is our conclusion that the research and development function is particularly susceptible to financial constraints and sufficient long term funding to ensure its operation must be assured.

We have recommended the consolidation of all government inspection services with a significant occupational safety and health component into a single unified inspectorate in the new Department. We feel that such a move would enhance the "one window" concept we endorse as well as bring together a comprehensive body to which employers, workers, safety associations, trade unions and other interested groups or individuals could turn to for advice. We suggest it will also serve to encourage and promote the growth and development of these services in an atmosphere of similarly related functions where their priority would remain high. This merging would involve bringing together the four entities mentioned previously, the Inspection Services Division (Manpower and Labour), the Division of Industrial Health Services (Health and Social Development), the Coal Mines Inspectors (Energy Resources Conservation Board), and the Accident Prevention Department (Workers' Compensation Board).

We recognized that it would be impossible to provide coverage with inspectors at all work sites in Alberta as frequently

and as extensively as some might feel is desirable. We have recommended, therefore, that a priority item of the new Inspectorate should be the development of a program of self-inspection of the work site.

We have emphasized throughout the Report that the success or failure of the occupational safety and health program will ultimately depend to a considerable extent on the ability of the persons employed by the new Department. The inspection staff will be a main link with the worker at the work site and the Joint Committees. We have recommended that the qualifications of inspectors be upgraded with an emphasis on in-service training to achieve this end.

We have also recommended that inspections should be performed selectively on the basis of the assessment of all data available to the Department.

We found a considerable variation at the present time in the "shut down" capabilities of the various government inspectorates. We have recommended that the new Department review these capacities with a view to obtaining meaningful and effective uniformity in these regulations.

We have also recommended that the Inspectorate establish remedial courses in occupational safety and health to which individuals including those from management may be directed if they have been found guilty of unsafe work practices. We feel that in some cases, penalties for the violation of regulations relating to occupational safety and health are totally inadequate. We have recommended that consideration be given to stiffer penalties in cases of flagrant violations of the law.

As far as the overall approach of the new Inspectorate is concerned, we feel they should be seen to emphasize a policy of education and prevention at the work site in addition to that of enforcement.

We have suggested that both management and organized labour take a much more active role in promoting safety and health at the work site. We feel there are real limits to which improved conditions can be achieved through the regulatory efforts of government.

We have recommended that each employer set forth clearly defined safety objectives as a policy statement along with a clear allocation of responsibilities in this respect to those in the management structure. We feel that a positive policy and attitude on the part of senior management towards safety and health is most crucial to the success of any program.

We believe that the unions also have an important role to play in preparing their members to work in the "tripartite" framework we recommend. We also suggest the unions can contribute to the development of new safety and health standards and in the educational process.

As we have stated previously, any occupational safety and health program is only as effective as the attitude that exists towards it at the work site. It is the joint and co-operative responsibility of the government, employers, workers, and the trade unions when the labour force is organized, to develop this awareness and sensitivity to occupational safety and health matters on the job. Without the wholehearted support of any one of these parties, the entire program will not be successful. Your Commission has based the recommendations in this Report on the premise of co-operation, communication and support.

PART V: EPILOGUE

E P I L O G U E

All over the Western world there is a growing interest in occupational safety and health at the governmental level. There is a deepening concern for improvement and a serious desire to plan the control of hazards of the work environment - not only the physical hazards as we have long known them and the effects of exposure to noise, light, temperature, radiation, but also the carcinogenic effects of many substances used in industry that may take twenty or more years of exposure to reveal themselves, the ergonomic considerations, the psycho-social effect of the work environment.

Except for some legislators and the professionals directly involved in programs and a few notable large companies and employee organizations, we found in Alberta a regrettable apathy towards the subject. Innocuous motherhood statements and public image protection coupled with ignorance and perhaps, although unexpressed, fear of the possible cost and inconvenience of adequate protective programs contributed towards this apparent apathy.

Overcoming this apathy exhibited by worker and employer alike, is no doubt one of the greatest problems facing us in the area of occupational safety and health. Education closely linked with enforcement of well-founded regulations is only a start. Exposure to knowledge is of little use if willingness to learn is lacking and it has been shown time and again that enforcement of good regulations is disregarded when the policeman isn't evident. Smoking and highway

speeding are two common non-industrial health hazards that do not seem to be yielding materially to education and enforcement. Perhaps, with closer control and more continuous contact at the work site, there is a better chance of success in the occupational field.

Genuine interest in matters of safety and health comes about through involvement. Governments' programs and inspectors will have a great influence in leading industry through "tripartite" involvement at the work site to become nearly self-regulating, and governments' influence on Alberta educators at all levels will create an awareness and expectation of good performance from industry by the public. Very early training in forming safe habits and attitudes - during the learning process at school, during apprenticeship or at the start of new employment, as well as affecting the individual, influences public feeling.

Involvement is encouraged and influence reflected in employers' real and demonstrated interest and assumption of leadership, in workers' organizations or unions and their responsibility for input, in employers and employees peers and the acceptance of their responsibility to monitor working conditions.

Ideally the feeling of privilege develops from responsibility and involvement, and the apathy about which we complain is diluted.

In all aspects of occupational safety and health we would hope for strong input at a national level. The co-operation that exists now in some areas should be extended to the whole field, with administration and control by the provinces as close to the work site as possible. Eventually national codes and regulations, upgraded to suit local conditions if necessary, would prevail.



The goals which we established under the terms of reference were attainable only in part. It was of particular interest to us that meaningful statistics on which to make judgments were lacking. Comparisons concerning performance and with other jurisdictions were virtually impossible with perhaps the single exception of fatalities. An operating budget and budgetary control of the activities of the Workers' Compensation Board was not evident. In our view this is a serious deficiency.

We suggest a continuing re-examination and testing of the principles as well as the means used to implement acceptable changes by in-house authorities as well as others concerned.

We cannot close this Report without acknowledging the contribution made to it by our staff. Although each of the members of the Commission in his own way, contributed to the drafting of sections of the Report, Mr. Donald Harford, our original Executive Secretary, has a marked ability and aptitude for this type of work and his skill in assembling the final document is acknowledged with appreciation and gratitude. We would be remiss if we did not also commend him for his guidance and pleasant and efficient attention to the arrangements for our hearings and interviews. It is a pleasure also to express our thanks to the Co-Secretary, Mr. Gordon Armstrong, who joined us later. His knowledge of the area in which we were working assisted us greatly in our endeavours. Our secretaries, MissCarolyn Mah and Mrs. Heidrun Wagner, provided an efficient service and we owe them a great deal.

PART VI: APPENDICES

APPENDIX A

BIOGRAPHIES OF COMMISSION MEMBERS

1. Fred T. Gale (Chairman)

Mr. Gale recently retired as Vice President - General Manager of a major Alberta utility company after working over 40 years in this field. He is a professional engineer and has served as President of the Canadian Electrical Association.

2. David L. Cuthbert (Member)

Mr. Cuthbert is employed as a Senior Safety Supervisor with Imperial Oil Ltd. in Calgary. He had earlier worked on the oil rigs and then became involved in industrial safety matters. He has served as Chairman of a number of association safety committees including those of the Canadian Petroleum Association and the Canadian Association of Oilwell Drilling Contractors.

3. R. Paul Lawrence (Member)

Mr. Lawrence has worked as a Safety Director in industry. He has been with the Alberta Safety Council in a number of capacities for nearly 30 years and at the present time is its General Manager.

4. Allan K. McCagherty (Member)

Mr. McCagherty has had over 25 years experience in the

construction industry as a tradesman, foreman, superintendent and project manager both in Canada and overseas. He also was employed as a vocational education teacher. He is presently the Director of Labour Relations and Safety for Poole Construction Ltd.

5. Irvin C. Nessel (Member)

Mr. Nessel has worked as a journeyman heavy equipment operator in the construction industry. He has held a number of responsible positions in the International Union of Operating Engineers and is now the International Representative for Alberta, Saskatchewan and Manitoba.

6. C. Neil Reimer (Member)

Mr. Reimer is active in organized labour circles and is National Director of the Oil, Chemical and Atomic Workers International Union. He has served on the Executive Board and as Vice President of the Canadian Labour Congress.

7. Dr. Chris J. Varvis (Member)

Dr. Varvis is a practicing physician specializing in internal medicine. He does considerable consulting work in respirology and general medicine. He also serves as an Assistant Clinical Professor in the Faculty of Medicine at the University of Alberta. He is active in the organizations of his profession and is a past President of the Alberta Medical Association.

APPENDIX B

PRESS RELEASE

Honourable Dr. A. E. Hohol  
Minister of Manpower and Labour

November 28, 1973

Alberta Manpower and Labour Minister Dr. Bert Hohol today announced the appointment of seven people representing labour, management, medical and safety groups to the Province's Industrial Health and Safety Commission.

The formation of the Commission was announced earlier at the spring session of the Provincial Legislature as a result of the Government's growing concern for all aspects of safety. It will undertake a complete review and assessment of occupational health and safety policies and services in the Province.

Appointments include Fred Gale, Calgary, former Vice-president and General Manager of Calgary Power as Chairman; David L. Cuthbert, Calgary, Senior Safety Advisor, Production Department, Imperial Oil; Paul Lawrence, Edmonton Manager, Alberta Safety Association; Allan McCagherty, Edmonton Director, Industrial Relations and Safety, Poole Construction; Irvin C. Nessel, Edmonton, Past President, Alberta Provincial Building Trades Council; C. Neil Reimer, Edmonton, Canadian Director, Oil Chemical and Atomic Workers and Vice-president, Canadian Labour Congress; Dr. Chris Varvis, Edmonton, Past President, Alberta Medical Association.

A number of health and safety programs are presently administered through the Workmen's Compensation Board, Energy Resources Conservation Board, Health and Social Development, Manpower and Labour as well as the Department of the Environment.

Dr. Hohol said, "The Commission is to undertake a complete review and assessment of existing health and safety programs. It has the responsibility to present for government consideration the development of a total, co-ordinated program of occupational health and safety functions which will meet the needs of the growing industrial work force in the province".

The Commission is expected to complete and submit its Report to the Provincial Government within six months from the date of its appointment.



## INDUSTRIAL HEALTH AND SAFETY COMMISSION

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Edmonton, Alber

### APPENDIX C

#### AN INVITATION TO SUGGEST IMPROVEMENTS IN INDUSTRIAL HEALTH AND SAFETY PROGRAMS

As you may be aware, a Commission has been established by the Alberta Government to conduct a comprehensive study and survey of existing policies and programs in the field of occupational health and safety. This Commission is charged with the responsibility of recommending to government alternative policies which will provide a total co-ordinated program of occupational health and safety functions. It is likely that these recommendations will form the basis for future provincial legislation in this field.

A copy of the Order-in-Council is attached for your information.

The Commission is anxious to obtain submissions or representations from all interested persons and organizations and feels you may be interested in certain aspects of our inquiry.

The following matters are of particular concern to the Commission but the listing is not intended to be exhaustive.

- (1) What are the underlying causes of success or failure in the prevention of accidents and ill health at work?
- (2) Are major changes needed in the focus of existing legislation, administrative procedures, and enforcement, dealing with safety and health at work?

(3) Are there any advantages or disadvantages arising from the fact that these responsibilities are spread over a number of government departments and agencies?

(4) What contribution to the occupational health and safety field are or can be made by professional organizations, private groups, trade unions, safety committees, employers and employees?

(5) How could safety and health arrangements be better organized within individual companies or establishments?

(6) What type of occupational health and safety research is most needed, and on what problems? How could existing statistics in this area be improved and/or used more effectively?

(7) Any other matters related to industrial health and safety which may be of concern.

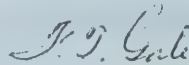
The Commission invites you to consider whether or not you can be of assistance in this study. You may wish to communicate with Mr. F.T. Gale, the Chairman, or Mr. D.B. Harford, the Executive Secretary, at the above address, as to any submission or representation you may wish to make, or as to any information you may wish to make available to the Commission.

You are also invited to participate in public hearings which are now planned in mid-April, 1974, in Edmonton, Calgary, Medicine Hat and Grande Prairie. Exact dates will be set for these hearings following an assessment of the response of the general public to an advertisement calling

for submissions which will appear in newspapers throughout Alberta in the near future. It may also be that the Commission will hold hearings in other Alberta communities if this appears desirable.

We are contacting you in advance at this time because of your special interest and experience in this area and we would appreciate any material which you may wish to make available to us. We would like to receive this as soon as possible but in any case before the April 5th deadline date which will be set out in the public advertisement.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "F.T. Gale".

F.T. Gale  
Chairman

Enclosure (1)

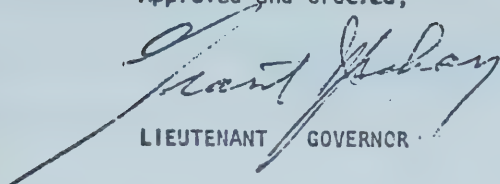
FTG/tp

February 18, 1974



Approved and Ordered,

O.C. 1848/73

  
LIEUTENANT GOVERNOR

Edmonton

November 27, 1973

Upon the recommendation of the Honourable the Minister of Manpower and Labour, the Lieutenant Governor in Council appoints an INDUSTRIAL HEALTH AND SAFETY COMMISSION to conduct a broad comprehensive study and survey of all existing policies and programs and to recommend alternative plans which will provide a total co-ordinated program of occupational health and safety functions, with membership as follows:

- |     |                    |          |          |
|-----|--------------------|----------|----------|
| (a) | Fred Gale,         | Chairman | Calgary  |
| (b) | David L. Cuthbert, |          | Calgary  |
| (c) | Paul Lawrence,     |          | Edmonton |
| (d) | Allan McCagherty,  |          | Edmonton |
| (e) | Irvin C. Nessel,   |          | Edmonton |
| (f) | C. Neil Reimer,    |          | Edmonton |
| (g) | Dr. Chris Varvis,  |          | Edmonton |

  
CHAIRMAN

APPENDIX D

ORGANIZATIONS, GROUPS AND INDIVIDUALS  
APPEARING AT PUBLIC HEARINGS

Calgary - May 2 - 3, 1974

E. Rast

W. Smith

R. Ell

C. Walsbey

Alberta Automobile Dealers' Association

Alberta Building Material Safety Council (Southern)

Videowoman

Canadian Petroleum Association

City of Calgary

Canadian Society of Laboratory Technologists (Alberta Branch)

Alberta Association of Safety Personnel (Calgary Chapter)

Calgary Power Limited

Amoco

Edmonton - April 29 - 30, 1974

Alberta Federation of Labour

Futurama Window Corporation Ltd.

Alberta Building Materials Safety Council (Northern)

Alberta Hospital Association

Civil Service Association of Alberta

A. Fennell (Project Co-ordinator for Pegasus Experimental Metals and  
Mining Ltd.)



International Association of Heat and Frost Insulators and Asbestos  
Workers

Canadian Manufacturers Association (Alberta Branch)

International Union of Operating Engineers

Northern Petro-Chemical Safety Council

Medicine Hat - June 3, 1974

Canadian Food and Allied Workers (Local P511)

Oil, Chemical and Atomic Workers International Union (Local 9-693)

United Cork, Linoleum and Plastic Workers Union

Lethbridge - June 4, 1974

Canadian Food and Allied Workers (Local P740)

International Union of United Brewery, Flour, Cereal, Soft Drink and  
Distillery Workers (Local 245 - Lethbridge Brewery)

City of Lethbridge

Grande Prairie - June 5, 1974

Canadian Forest Products Ltd.

Alberta Forest Products Association

Procter and Gamble Cellulose Ltd.

## APPENDIX E

### OUT OF PROVINCE VISITS MADE BY THE COMMISSION

Members of the Commission made a number of visits to other jurisdictions in Canada, in the United States, and in Europe to study various aspects of occupational health and safety policies and programs in each at first hand. Discussions were held with government officials and also with management and union representatives.

Arrangements for appointments in Europe were handled through the Department of External Affairs and the Canadian missions in the countries concerned. In all cases both here and abroad, the Commission members were very well received and we wish to express our thanks to those persons who took the time to make these visits so interesting and productive.

### PROVINCIAL VISITS

#### 1. British Columbia

The Commission held informal discussions with provincial officials of the Department of Labour, The Workmen's Compensation Board, and the Department of Mines and Petroleum Resources from March 6 - 8, 1974. Meetings were also convened on May 9 & 10, 1974, with representatives of the B.C. Federation of Labour and the B.C. Council of Forest Industries as well as with the Chairman of a recently completed Provincial Commission on Electrical Inspection in B.C.

2. Saskatchewan

Members of the Commission met with the Minister of Labour and his Director of Occupational Health and Safety on March 13, 1974.

3. Ontario

Meetings were arranged in Toronto on March 12, 1974, through the Ontario Ministry of Labour with senior representatives from that Ministry and the following provincial departments and organizations:

1. Ministry of Health
2. Ministry of the Environment
3. Ministry of Natural Resources
4. Ministry of Consumer & Commercial Relations
5. Ministry of the Solicitor General
6. Ministry of Transportation & Communications
7. Workmen's Compensation Board
8. Labour Safety Council
9. Ontario Safety League
10. Ontario Federation of Labour

Discussions were held as well with various safety and accident prevention associations operating in the province.

FEDERAL GOVERNMENT

Four members of the Commission travelled to Ottawa on March 10, 1974, and met with senior officials of Labour Canada, the Treasury Board, the Canadian Government Specifications Board, the Ministry of Transport, the Dominion Fire Commissioner's Office and Canada Health and Welfare.

## EUROPEAN VISIT

We visited Europe from September 8, 1974, until September 27, 1974. Discussions were held in London and Birmingham in the United Kingdom; Bonn, Dusseldorf and Cologne in West Germany; Stockholm in Sweden, and Geneva in Switzerland.

### The United Kingdom

The Commission set up appointments with national departments, organizations and institutions through the offices of the Canadian High Commission and Alberta House.

These meetings were with officials from the Factory Inspection Branch and the Chief Medical Advisory Office of the Department of Employment, the London School of Hygiene and Tropical Medicine, the Ministry of Defence, the Hygiene and Safety Department of the University of Aston and the United Kingdom Trade Union Council.

We were also privileged to host members of the U.K. Royal Commission on Civil Liability when they visited us in Edmonton on June 14, 1974.

### Germany

In Dusseldorf, we held discussions with the German Confederation of Trade Unions. While in Bonn, we met with the Federal Ministry of Labour and the Union of Industrial Employers (die Berufsgenossenschaften). The latter organization is very similar in function to our Workmen's Compensation Boards in Canada. We visited the Association of German Employers in Cologne and the Bayer Chemical Works at Leverkusen. We also viewed the operations of the Rheinbraun open pit coal mine in that area.

### Sweden

Arrangements for all our appointments were handled by the Swedish Institute. Three government agencies we visited were the Central Bureau of Statistics, The National Board of Occupational Safety and Health and the National Health and Social Insurance Board. We also had discussions with The Swedish Employers Confederation (SAF) and The Swedish Confederation of Trade Unions (LO).

### Switzerland

Appointments were made for us with officials of the International Labour Organization and the World Health Organization. We also toured a nuclear research plant near Geneva (CERN).

### UNITED STATES OF AMERICA

During the week of October 21 - 25, 1974, the Commission travelled to Washington, D.C.; Chicago, Illinois and Lansing, Michigan, to meet with various federal, state and public sector officials working in the health and safety field.

In Washington, D.C., we met with personnel from both the federal Occupational Safety and Health Authority (OSHA) and the National Institute for Research into Occupational Safety and Health (NIOSH). Discussions were also held at the AFL-CIO headquarters, National Association of Manufacturers and the National Constructors Association.

In Chicago, Illinois, at the end of our tour we talked to senior staff at the National Safety Council and in Lansing, Michigan, met with state officials in the Departments of Labour and Public Health.



The Commission appreciated the opportunity to make these visits and derived considerable benefit from them. In general, we found that the various jurisdictions we visited were facing many of the same underlying problems and situations that we are now encountering in Alberta relative to occupational health and safety. We have attempted to assess the varying approaches that are being taken elsewhere and have hopefully incorporated the best features of each as applicable to the Alberta scene into our recommendations.

APPENDIX F

REPORTS FROM CONSULTANTS

The following studies were commissioned to enable the Commission to gain a greater understanding of the subject of safety and health at work in Alberta:

1. Dr. R. Murray - "An Appraisal of the Occupational Health and Safety Situation in the Province"
2. Ms. Penelope A. Bonnett - "An Inventory of Occupational Health and Safety Data in Alberta Government Agencies"
3. P. S. Ross & Partners - "Organization of Occupational Health and Safety"

# EMPLOYMENT SAFETY AND HEALTH IN CANADA PRINCIPAL AREAS OF RESPONSIBILITY OF REGULATORY AUTHORITIES

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Canada                                     | Nfld.   | P.E.I. | N.S. | N.B. | Que.                                          | Ont. | Man.    | Sask. | Alta. | B.C.   | Yukon        | N.W.T.       |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| <b>I MECHANICAL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                            |         |        |      |      |                                               |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Boilers & Pressure Vessels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | LAB                                        | M & IR  | LAB    | LAB  | LAB  | L & M                                         | CCR  | LAB     | LAB   | M & L | PW     | Commissioner | Commissioner |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Elevating Devices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LAB                                        | M & IR  | CS     | LAB  | LAB  | L & M                                         | CCR  | LAB     | LAB   | M & L | LAB    | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Electrical Installations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LAB                                        | WCB     | CS     | LAB  | LAB  | L & M                                         | CCR  | MH      | LAB   | M & L | PW     | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                            | AG      |        |      |      |                                               |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gas & Oil Installations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LAB                                        | MAR     | -      | LAB  | LAB  | L & M                                         | CCR  | LAB     | LAB   | M & L | PW     | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>II GENERAL SAFETY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                            |         |        |      |      |                                               |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Industrial & Commercial                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LAB                                        | WCB     | WCB    | LAB  | LAB  | L & M                                         | MOL  | WCB     | LAB   | WCB   | LAB    | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Construction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                                          | WCB     | WCB    | LAB  | LAB  | L & M                                         | MOL  | WCB     | LAB   | WCB   | WCB    | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mining                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LAB                                        | MAR     | -      | M    | NR   | NR                                            | NR   | MR & EM | LAB   | M & M | M & PR | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>III SPECIAL CATEGORIES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                            |         |        |      |      |                                               |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Industrial Hygiene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LAB                                        | WCB     | WCB    | PH   | LAB  | MA                                            | MOL  | H       | LAB   | H     | WCB    | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                            |         |        | H    |      |                                               | PH   |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sanitation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | LAB                                        | WCB     | WCB    | PH   | LAB  | MA                                            | MOL  | H       | LAB   | M & L | LAB    | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Explosives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | EMR                                        | WCB     | WCB    | LAB  | LAB  | L & M                                         | MOL  | MR & EM | LAB   | WCB   | WCB    | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Radiation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | AECB                                       | -       | WCB    | PH   | LAB  | MA                                            | PH   | H       | LAB   | H     | HS     | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Fire Prevention                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LAB                                        | AG      | CS     | LAB  | LAB  | L & M                                         | SG   | LAB     | LAB   | M & L | AG     | "            | "            |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| <b>IV EDUCATION &amp; TRAINING</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                            |         |        |      |      |                                               |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                            |         |        |      | IAPA | IAPA                                          | IAPA |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table> <tr> <td><b>Codes</b></td><td>Atomic Energy Control Board</td><td>MH</td><td></td><td></td><td></td><td>Manitoba Hydro</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>AECB</td><td>Attorney General</td><td>M &amp; IR</td><td></td><td></td><td></td><td>Manpower and Industrial Relations</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>AG</td><td>Consumer and Commercial Relations</td><td>M &amp; L</td><td></td><td></td><td></td><td>Manpower and Labour</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>CCR</td><td>Community Services</td><td>M &amp; M</td><td></td><td></td><td></td><td>Mines and Minerals</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>CS</td><td>Energy, Mines &amp; Resources</td><td>MOL</td><td></td><td></td><td></td><td>Ministry of Labour</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>EMR</td><td>Health</td><td>M &amp; PR</td><td></td><td></td><td></td><td>Mines and Petroleum Resources</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>H</td><td>Health Services</td><td>MR &amp; EM</td><td></td><td></td><td></td><td>Mines, Resources and Environmental Management</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>HS</td><td>Industrial Accident Prevention Association</td><td>NHW</td><td></td><td></td><td></td><td>National Health and Welfare</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>IAPA</td><td>Industrial Safety Council</td><td>NR</td><td></td><td></td><td></td><td>Natural Resources</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>ISC</td><td>Labour</td><td>PH</td><td></td><td></td><td></td><td>Public Health</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>LAB</td><td>Labour and Manpower</td><td>PW</td><td></td><td></td><td></td><td>Public Works</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>L &amp; M</td><td>Mines</td><td>SG</td><td></td><td></td><td></td><td>Solitor General</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>M</td><td>Municipal Affairs</td><td>WCB</td><td></td><td></td><td></td><td>Workmen's Compensation Board</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>MA</td><td>Mines, Agriculture &amp; Resources</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>MAR</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> |                                            |         |        |      |      |                                               |      |         |       |       |        |              |              | <b>Codes</b> | Atomic Energy Control Board | MH |  |  |  | Manitoba Hydro |  |  |  |  |  |  |  | AECB | Attorney General | M & IR |  |  |  | Manpower and Industrial Relations |  |  |  |  |  |  |  | AG | Consumer and Commercial Relations | M & L |  |  |  | Manpower and Labour |  |  |  |  |  |  |  | CCR | Community Services | M & M |  |  |  | Mines and Minerals |  |  |  |  |  |  |  | CS | Energy, Mines & Resources | MOL |  |  |  | Ministry of Labour |  |  |  |  |  |  |  | EMR | Health | M & PR |  |  |  | Mines and Petroleum Resources |  |  |  |  |  |  |  | H | Health Services | MR & EM |  |  |  | Mines, Resources and Environmental Management |  |  |  |  |  |  |  | HS | Industrial Accident Prevention Association | NHW |  |  |  | National Health and Welfare |  |  |  |  |  |  |  | IAPA | Industrial Safety Council | NR |  |  |  | Natural Resources |  |  |  |  |  |  |  | ISC | Labour | PH |  |  |  | Public Health |  |  |  |  |  |  |  | LAB | Labour and Manpower | PW |  |  |  | Public Works |  |  |  |  |  |  |  | L & M | Mines | SG |  |  |  | Solitor General |  |  |  |  |  |  |  | M | Municipal Affairs | WCB |  |  |  | Workmen's Compensation Board |  |  |  |  |  |  |  | MA | Mines, Agriculture & Resources |  |  |  |  |  |  |  |  |  |  |  |  | MAR |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Codes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Atomic Energy Control Board                | MH      |        |      |      | Manitoba Hydro                                |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AECB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Attorney General                           | M & IR  |        |      |      | Manpower and Industrial Relations             |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Consumer and Commercial Relations          | M & L   |        |      |      | Manpower and Labour                           |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CCR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Community Services                         | M & M   |        |      |      | Mines and Minerals                            |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Energy, Mines & Resources                  | MOL     |        |      |      | Ministry of Labour                            |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EMR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Health                                     | M & PR  |        |      |      | Mines and Petroleum Resources                 |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Health Services                            | MR & EM |        |      |      | Mines, Resources and Environmental Management |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Industrial Accident Prevention Association | NHW     |        |      |      | National Health and Welfare                   |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IAPA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Industrial Safety Council                  | NR      |        |      |      | Natural Resources                             |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ISC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Labour                                     | PH      |        |      |      | Public Health                                 |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LAB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Labour and Manpower                        | PW      |        |      |      | Public Works                                  |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| L & M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mines                                      | SG      |        |      |      | Solitor General                               |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Municipal Affairs                          | WCB     |        |      |      | Workmen's Compensation Board                  |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mines, Agriculture & Resources             |         |        |      |      |                                               |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MAR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                            |         |        |      |      |                                               |      |         |       |       |        |              |              |              |                             |    |  |  |  |                |  |  |  |  |  |  |  |      |                  |        |  |  |  |                                   |  |  |  |  |  |  |  |    |                                   |       |  |  |  |                     |  |  |  |  |  |  |  |     |                    |       |  |  |  |                    |  |  |  |  |  |  |  |    |                           |     |  |  |  |                    |  |  |  |  |  |  |  |     |        |        |  |  |  |                               |  |  |  |  |  |  |  |   |                 |         |  |  |  |                                               |  |  |  |  |  |  |  |    |                                            |     |  |  |  |                             |  |  |  |  |  |  |  |      |                           |    |  |  |  |                   |  |  |  |  |  |  |  |     |        |    |  |  |  |               |  |  |  |  |  |  |  |     |                     |    |  |  |  |              |  |  |  |  |  |  |  |       |       |    |  |  |  |                 |  |  |  |  |  |  |  |   |                   |     |  |  |  |                              |  |  |  |  |  |  |  |    |                                |  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |

FUNCTIONS OF THE INSPECTION SERVICES DIVISION

DEPARTMENT OF MANPOWER AND LABOUR

| <u>BRANCH</u>      | <u>LEGISLATION</u>                                                                                                                    | <u>STANDARDS</u>                                                                                               | <u>ENFORCEMENT</u>                                                                             | <u>INSPECTION COVERAGE</u>                                                                                                                                       |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BOTTLERS           | Boiler and Pressure Vessels Act covering boilers, pressure vessels, power plants, heating plants and pressure plants.                 | Regulations consist of national and CSA Standards                                                              | Province-wide                                                                                  | Inspection coverage by Provincial Inspectorate                                                                                                                   |
| BUILDING STANDARDS | Uniform Building Standards Act covering new buildings and alterations                                                                 | Alberta Building Regulations based on the National Building Code                                               | Standards are applicable province wide with no provision for local amendments                  | Local enforcement by authorized cities & municipalities throughout province with assistance. Provincial Inspectorate responsible for all other areas of province |
| ELECTRICAL         | Electrical Protection Act covering generating, distribution and utilization of energy                                                 | Alberta Regulations for generating and distribution. CSA standards for interior wiring & utilization equipment | Province wide with no provision for exemptions. Municipalities may have non-conflicting bylaws | Provincial Inspectorate with the exception of interior wiring in the three major centres which is covered by local enforcement                                   |
| ELEVATORS          | Elevators and Fixed Conveyances Act covering elevators, and fixed conveyances                                                         | Regulations consist of CSA safety codes for elevators, hoists aerial tramways and midway rides                 | Province wide with no provision for bylaws                                                     | Provincial Inspectorate                                                                                                                                          |
| FIRE               | Fire Prevention Act covering fire safety, training and investigation                                                                  | Regulations consist of national and provincial fire safety requirements                                        | Province wide with provision for non-conflicting bylaws                                        | Provincial Inspectorate in conjunction with local officials                                                                                                      |
| GAS                | Gas Protection Act covering customer natural and propane gas installations and utilization equipment                                  | Regulations consist of Canadian Gas Assoc. standards                                                           | Province wide with provision for non-conflicting bylaws covering installation requirements     | Local enforcement with assistance for cities and towns over 5000. Remaining locals and rural areas covered by Provincial Inspectorate                            |
| PLUMBING           | No specific Plumbing Act. Plumbing and Drainage installations provided with regulation coverage by section of Manpower and Labour Act | Alberta regulations covering plumbing and drainage installations based on national requirements                | Province wide with provision for local bylaws pertaining to the administration of regulations  | Local enforcement for cities and towns with rural installations covered by Provincial Inspectorate                                                               |
| THEATRES           | Amusements Act covering places of assembly for amusement                                                                              | Alberta Regulations pertaining to safety matters associated with projectionists and places of assembly         | Province wide with provision for local bylaws to cover non-conflicting requirements            | Provincial Inspectorate aided by local Fire Dept. and Building Officials                                                                                         |



JUL 9 1974

HEALTH AND  
SOCIAL DEVELOPMENT

403/229-3561

Office of  
the Minister227 Legislative Building  
Edmonton, Alberta, Canada T5K 2B6

July 2, 1974

Mr. F. T. Gale, Chairman  
Industrial Health and Safety Commission  
202 Sir John Franklin Building  
11111 - 87th Avenue  
EDMONTON, Alberta, T6G 0X9

Dear Mr. Gale:

I am writing at this time to express the views of the Department with regard to Industrial Health Services and their relationship to the Department of Health and Social Development. I would submit for your consideration the following proposals:-

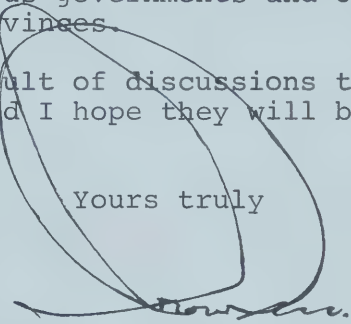
- (1) Industrial Health Services be transferred under the jurisdiction of the Workers' Compensation Board.
- (2) That a Professional Scientific Advisory Board be formed that could review matters recommended by the Directors of Industrial Health Services and develop policies and, in turn, provide such recommendations to the Workers' Compensation Board. It would be expected that the line authority would be the Director of the Division of Industrial Health Services (or Occupational Health and Safety) to the Senior Officer of the Workers' Compensation Board but with the Advisory Board playing an important role in terms of policy and advice.
- (3) The Provincial Board of Health would continue under the present regulations with powers of enforcement and responsibility pertaining to occupational health services. The Director of Occupational Health and Safety would be a member of the Board to ensure close liaison.
- (4) An intergovernmental sub-committee advisory to the professional scientific committee could be developed which would be composed of representatives from the various Departments of Government including Health and Social Development, Manpower and Labour, Industry and Commerce, Environment and such other Government Departments that would seem appropriate. The intent would be to encourage greater intergovernmental contacts and co-ordination regarding matters related to industrial health and safety.



- (5) Serious consideration be given to recommending to the Governments of the four Western Provinces the need to develop a Centre for Occupational Health and Safety. This centre or institute would be affiliated with a University and would be responsible for -
- (a) educating individuals in the area of occupational health, including retraining and continuing education of personnel,
  - (b) research activities related to occupational health, and
  - (c) provide scientific personnel that could act as consultants providing advice to various governments and organizations in the four Western Provinces.

These suggestions are the result of discussions that have been held within the Department and I hope they will be of assistance to the Commission.

Yours truly

A large, loopy handwritten signature in dark ink, likely belonging to Neil Crawford, is written over the typed name and title.

Neil Crawford  
Minister of Health  
& Social Development

CC: Commission Members - July 9/74











